

## Raising expectations for easier underground inspections

We specialise in the manufacture and distribution of Pipeline Inspection Systems including Proteus Tractors, SOLOPRO+ Push Cameras.

**SOLO PRO+**

# Contents

About Us	3
System Configuration	4
Coiler Features	6
Coiler	10
Cameras	12
ATEX Systems	14
MINI REEL	16
Accessories	18
Product Specification	24
Support	26

# About Us

Dedicated to pipeline inspection innovation



For over 30 years we have used our industry experience and customer feedback to continually innovate. We develop leading solutions for challenging environments, producing smart, user-friendly, durable, high-quality systems that keep our customers working.

We place a very strong emphasis on reliability and robustness, designing systems that are durable under both in-pipe conditions and during handling, and that are efficiently serviced so that working time is maximised. We design and produce almost all components in-house, which ensure the highest levels of quality and the ability to meet our customers needs for fast delivery and response times, and are an ISO9001 certified company.



CCU210 Control Unit



40 metre Rod



60 metre Rod



100 metre Rod



Axial Camera



Pan & Rotate & Laser Camera



Roller Skids



Lateral Pin Kit



Video Input Cable



Tilting Table



All Terrain Wheels



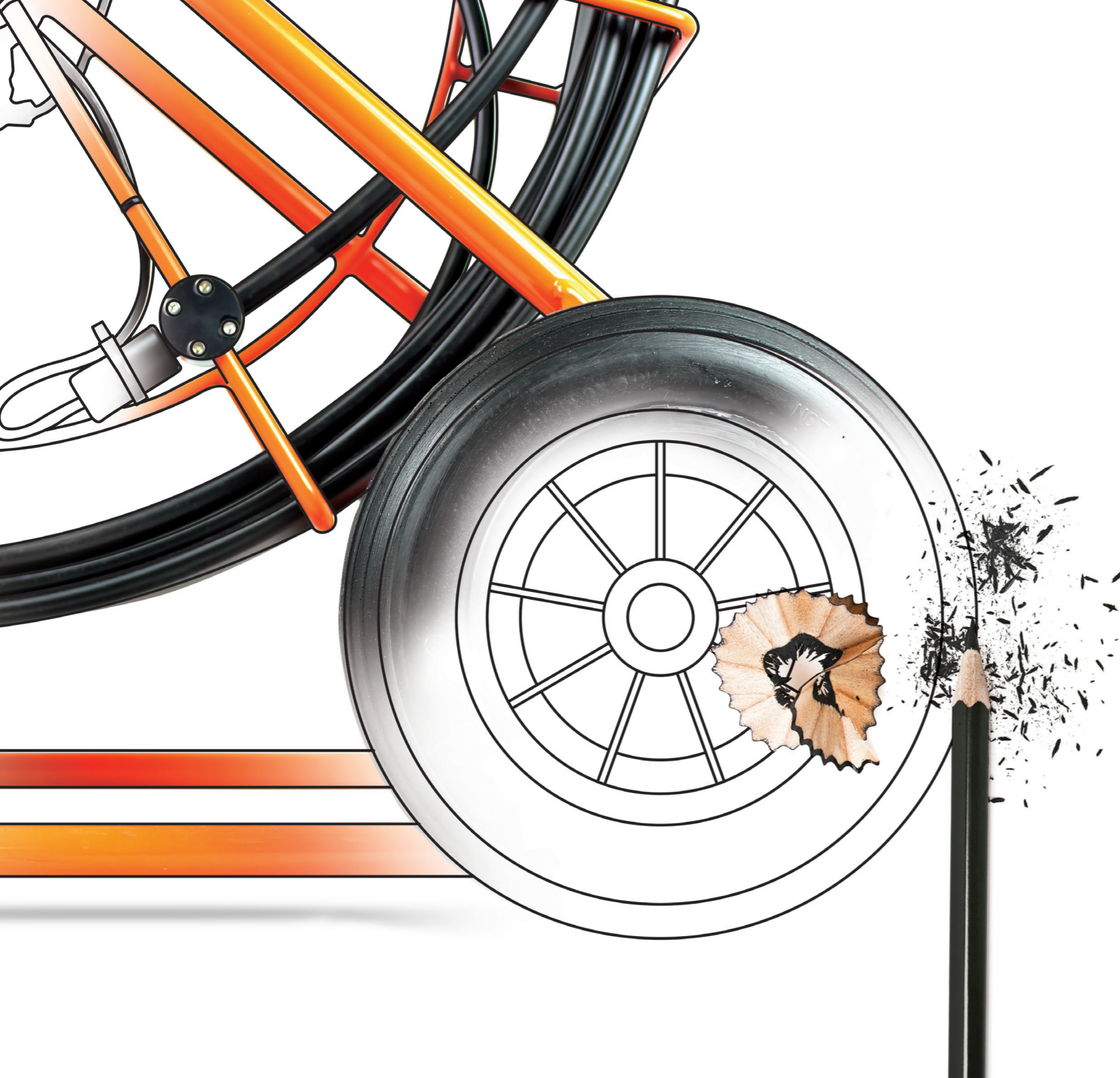
SeeSnake Interface

# ENGINEERED TO PERFORM

## SOLOPRO+ handles it all

Highest quality components are used in all Minicam products, and our skilled technicians build each system by hand to our exacting standards.

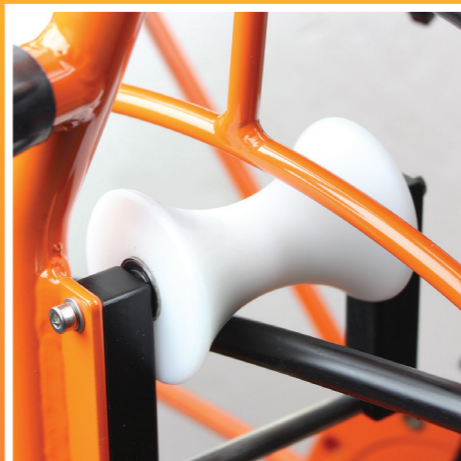
Every SOLOPRO+ System is checked and rigorously tested before leaving our UK factory, and you can rest assured that we're right behind you, with our pmeccable service and aftercare.



Easy-fit Control Unit



Heavy Duty Camera Connector



Rod Roller



Integrated Meterage Measurement



Friction Brake



Heavy Duty Wheels

# SOLOPRO+

## CCU210

### Survey Features

Access embedded reporting software to create detailed on-site reports



### Review Footage

Organise videos and images into folders, then find them using thumbnail gallery. Review media using standard controls.



### Illumination

Increase or decrease the intensity of the ultra-bright camera LEDs



### Sonde Settings

Set the frequency of the Sonde transmitter to 33kHz, 512Hz or 640Hz



### Hot Keys

User-friendly, multi-function hot keys control an intuitive on-screen display of the numerous features



### Write Screen Text

Type and store up to 16 pages of on screen text. Customise text colour, position and background colour



### Capture Footage

Record MPEG video and JPEG images, and zoom up to 3x on video playback



### Control Meterage

Accurately Set the meterage zero offset using the meterage key



### Offload Data

Copy reports, videos and images to USB or SDHC media for easy transfer to PC and seamless integration with WinCan reporting and querying capabilities

### Generate Reports

Use ProPIPE+ reporting software to create detailed inspection reports with a pipe graph to pinpoint defects



### Setup & Configuration

Easily and quickly configure the Proteus CCU to your specific requirements using the various menu options. Set language, date and time; establish file formats and naming conventions; adjust camera parameters.



### Share Files

WiFi enabled to allow remote access to stored images and data. Users can instantly share PDF reports, images and footage via email or upload WinCan Reports via the Cloud to WinCan Web for secure, immediate team-wide access online



### Alternative Languages

Proteus is currently available with keyboards in English, French, German and Russian

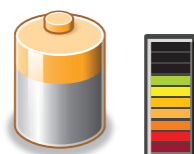
### Screens Intensity

The brightness, colour and backlit intensity of the internal display can be adjusted to suit the environment in which the system is being used.



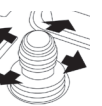
### Internal Batteries

The Proteus CCU includes internal batteries so that it can be used autonomously to view inspection reports and video



### Joystick Controls

Controlling movement of the Pan & Rotate camera is smooth and effortless using the joystick control. Perform a 360° endless rotation and pan the camera +/- 135°.



# Coiler

## SPP40 / 60 / 100

The coiler frame is the carrier for the coiler rod, the camera and the CCU. Minicam have constantly refined the design, materials, components and construction, to make for our best ever frame. Customers the world over have come to rely on the SOLOPRO+ frame for the reliability and longevity, and of course our enviable after-care and service back-up.

The welded tubular steel construction and protective powder coating means the coiler stands up to the punishment of daily field use. The rod sheath is protected when paying-out and rewinding by an integrated rod roller, and a sturdy, water resistant camera connector houses the multi-frequency sonde, with selectable frequencies 33Hz, 512Hz and 640Hz. A sealed slip ring in the coiler hub ensures reliable operation, while measurements from the integral distance counter appear on the CCU screen for recording into the video



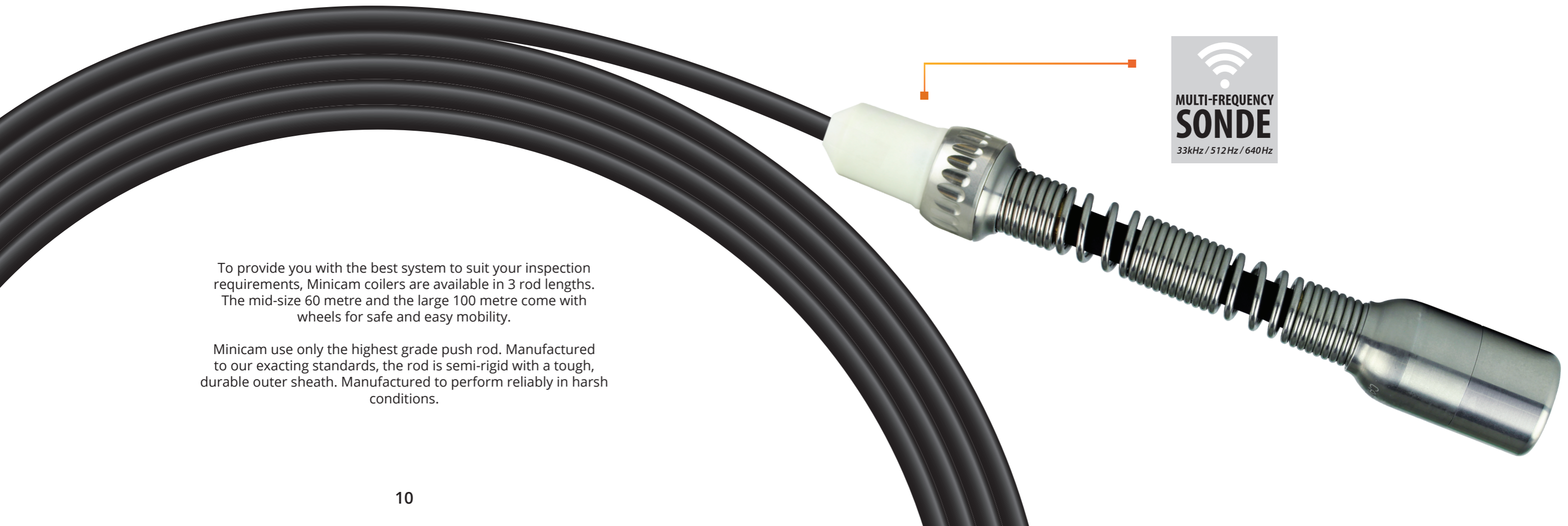
100  
metre



60  
metre



40  
metre



To provide you with the best system to suit your inspection requirements, Minicam coilers are available in 3 rod lengths. The mid-size 60 metre and the large 100 metre come with wheels for safe and easy mobility.

Minicam use only the highest grade push rod. Manufactured to our exacting standards, the rod is semi-rigid with a tough, durable outer sheath. Manufactured to perform reliably in harsh conditions.

# PRECISION CAMERAS FOR OPTICAL EXCELLENCE

Highest quality components are used in our camera designs, and our skilled technicians assemble and rigorously test the cameras at our UK production facility. Built for longevity, the cameras are rugged, with robust and precise connectors, and are engineered to perform with excellent optical qualities.



## Axial CAM025

A Minicam best seller, the CAM025 Self-Levelling Axial camera performs reliably in daily use. The stainless steel housing with flexible four high powered spring and heavy duty connector features four high powered, ultra-bright LED Lights.

The housing has an integral, hard wearing, scratch resistant sapphire glass to protect the camera lens. CAM025 is supplied as standard with the SOLOPRO+ Axial System and the SOLOPRO+ Duo System.

### TECHNICAL SPECIFICATION

Product code	CAM025
Effective Pixels	470 HTVL
Sensitivity	<1.0 Lux
Aperture	F2.5/75°
Illumination Intensity	12.5k Lux at 150mm
Pressure Depth Rating	1 bar (14.50psi)
Dimensions	271 x 41 x 41 mm
Weight	620g



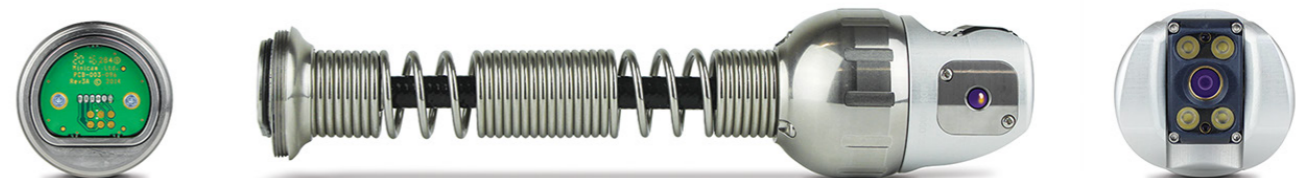
## Pan, Rotate & Laser CAM050

Continuous 360° rotation and +/-135° pan. Integral distance sensor and twin lasers to enable accurate pipe diameter, defect and object measurement. CAM050 is shipped with Minicam's SOLOPro+50 pipeline video inspection system.

CAM050 is shipped with Minicam's SOLOPro+50 pipeline video inspection system or optionally with our standard SOLOPro+ configuration, available in multiple rod lengths and with a range of options. The CAM050 is also compatible with our LAT150, mainline to lateral inspection system.

### TECHNICAL SPECIFICATION

Product Code	CAM050
Pipe Diameter	Greater than 60mm (2.36in)
Aligned Laser Spacing	Dual aligned front facing / single side
Camera Resolution	470 HTVL
Sensitivity	<1.0 Lux
Aperture/Field of View	F2.5/75°
Dimensions	50mm diameter
Illumination Intensity	12.5k Lux at 150mm
Pressure Depth Rating	1 bar (14.50psi)



# ATEX Systems

## Uncompromising Performance and Safety

SOLOPRO+™ ATEXSystems are engineered, built and tested for safe use in some of the most dangerous situations, without compromising on any of the features and functionality of our regular SOLOPRO+ Systems.

With ATEX approval these systems make working in Zone 1 and other explosion-risk environments much easier and safer than alternative methods, giving you a clear, sharp eye into the unknown, without introducing risk through the use of electronic devices in explosive atmospheres.

SOLOPRO+ EX provides peace of mind safety, with the same professional quality, reliability and accuracy Minicam customers expect from the SOLOPRO+ label.



**ENGINEERED FOR EXPLOSION-RISK ENVIRONMENTS**



Axial Camera CAM025EX



ATEX CCU210 override key





## MINI REEL

**Perfect for small diameter pipe inspections in hard to reach applications.**

A compact, portable system, designed and developed to provide an increased range of inspection possibilities for hard to navigate and awkward situations. The unique mini-coiler is perfect for small diameter pipe inspections.

The SOLO PRO+ MINI REEL has all you need to inspect pipes, document your findings, and create detailed reports for on-site delivery. It combines a host of features that deliver an improved user experience for efficient inspections and accurate reporting.



## Key Features

The miniature axial camera and unique 30 metre mini coiler are perfect for small diameter pipe inspections in hard-to-reach applications. The in-built stabiliser leg, doubles as a carry handle for comfort and portability. Heavy duty and durable, yet lightweight, the powder coated tubular basket frame can be used in a vertical or horizontal position.

### Miniature Camera

The 30mm camera head with ultra-bright LEDs, and generous 390mm spring length, enables unlimited adaptability for hard-to-navigate situations.

### Ultra-flexible

Boasts an impressive 390mm length of ultra-flexible spring which enables unlimited adaptability for that hard-to-navigate, awkward situation.

### Small Diameter

Specially designed for inspections in pipe diameters as small as 32mm, ideal for domestic plumbing and hard-to-Reach traps.

### Easy-fit Control Unit

Minicam's unique cow-horn-shaped CCU locator makes for a secure quick fit, ready for work.



## Miniature Axial Camera

Our smallest diameter camera, specially developed to make easy work of inspections in sanitary applications such as the bathroom, toilet, kitchen and floor drain. CAM030 boasts an impressive 390mm length of ultra-flexible spring, and with its miniature 30mm camera head enables unlimited adaptability for those hard to navigate, awkward situations.



### TECHNICAL SPECIFICATION

<b>Weight</b>	<b>Frame including reel 5.5kg Frame without reel 1.7kg</b>
<b>Dimensions (inc reel)</b>	<b>570 x 240 x 400 cm</b>
<b>Dimensions (without reel)</b>	<b>570 x 240 x 250 cm</b>
<b>Rod Length</b>	<b>30 metre</b>
<b>Finish</b>	<b>Powder Coated</b>
<b>Construction</b>	<b>Welded Steel</b>



## Roller Skids

Increase the effectiveness and lifespan of your pipeline inspection system

Manufactured from highquality materials. No tools or manual adjustments are required, simply fit the skid and the three pivoting arms with specially shaped nylon wheels adjust to fit the required pipe diamter, keeping the camera head centred in the pipeline at all times.

The roller skids expand the SOLOPRO+ system for use in 15cm to 22.5cm (6" - 9") pipelines, this enables you to use your push camera inspection system in pipelines that would otherwise require a crawler system. The roller skids allow inspection cameras to navigate multiple corners and bends and increase the inspection range significantly.

Manufactured from stainless steel and ABS plastic, the device is sturdy, rugged and corrosion resistant to withstand te punishment of daily field work.

### TECHNICAL SPECIFICATION

Compatiability	Product Code
180mm Roller Skid for CAM025	ASS-002-009
180mm Roller Skid for CAM026	ASS-001-955
130mm Roller Skid for CAM026	ASS-002-160
130mm Roller Skid for CAM025	ASS-002-008



Available in two sizes to fit the CAM025 Self Levelling Axial Camera and the CAM026 Pan & Rotate Camera.



ASS-001-955 & CAM026



ASS-001-955



ASS-002-009



ASS-002-160



ASS-002-008



ASS-002-008 & CAM025

## Tilting Table

Adjust the CCU position to suit the needs of the user

Quick and easy to attach, the Tilting Table allows adjustment of the control unit position, to give the user optimal screen viewing and keyboard positions. The table can be tilted 35° forward and 75° backwards, with a full, unobstructed 360° horizontal rotation. No tools are required, simply attach using the adjustable clamps.



TECHNICAL SPECIFICATION	
Product Code	TTC01
Dimensions	350 x 300 x 270 mm
Weight	3kg

## All Terrain Wheels

Improved stability for coiler rolling

The All Terrain Wheels attachment provides better stability for the user when manoeuvring a coiler through rocks, grass, woodland, mud and pavement. Sturdy construction, portable and easy-to-store. Quick and easy to attach and remove, no tools are required.

**Please Note:** The All Terrain Wheels attachment is not intended for use on stairs or kerbs.



TECHNICAL SPECIFICATION	
Product Code	TTC01
Dimensions	860 x 265 x 265 mm
Weight	1.5kg

## Video Input Cable

### Connectivity to external video equipment

Allows use of external video equipment to be rewarded on SOLOPRO+ Control Unit. This allows the user to take advantage of the embedded reporting software.



TECHNICAL SPECIFICATION	
Product Code	SPP-EVL
Length	2 metre
Weight	125g



## Seesnake® Interface

### Exclusively compatible with Minicam Control Units

Sturdy and robust construction, the Minicam SeeSnake Interface unit quickly and easily connects the Rigid® SeeSnake Standard and SeeSnake mini cameras to Minicam's intuitive and advanced Proteus Control Units.

TECHNICAL SPECIFICATION	
Product Code	SSP01
Compatibility	Proteus Control Unit
Dimensions	50 x 268 x 40 mm
Weight	115g

## Lateral Pin Kit

### Smooth inspection of incoming laterals

For use with the CAM026 Pan & Rotate camera when attached to the CCP60/100 Compatible Coiler. Simply attach the pin to allow the inspection of incoming lateral pipes. The pin adjusts the direction, and guides the camera smoothly along the pipe. The kit comes with three sizes of pin: small 150mm, medium 225mm and large 300mm. Fixings and instruction included.



TECHNICAL SPECIFICATION	
Product Code	ASS-001-968
Small Pin Length	150mm
Medium Pin Length	225mm
Large Pin Length	300mm
Fixings Supplied	6 Screws

CONTROL UNIT		Axial System	Pan & Rotate System	Duo System
Video Format	PAL	■	■	■
Battery	6-hour Lithium-Ion	■	■	■
Charging	Main power (100-240 Vac) or vehicle power (12 or 24 VDC) using supplied adaptors	■	■	■
Display	8" TFT LCD (800-600 pixels) Sunlight viewing	■	■	■
Keyboard	Full QWERTY style membrane keyboard with arrow keys for navigation and separate joystick for camera control	■	■	■
Video Recording	MPEG4 (WinCan compatible)	■	■	■
Image Capture	JPEG (live or from recorded video)	■	■	■
Text Overlay	16 pages (selectable text and colour)	■	■	■
Internal Memory	32GB (expandable to 128GB)	■	■	■
External Media	SDHC and USB 2.0	■	■	■
Language Support	Multiple	■	■	■
Connections	Power and Coiler	■	■	■
Environmental Rating	IP54	■	■	■
Weight		3.85kg	3.85kg	3.85kg
Dimensions		435 x 250 x 140 mm	435 x 250 x 140 mm	435 x 250 x 140 mm

COILERS		Axial System	Pan & Rotate System	Duo System
Construction	Welded Steel	■	■	■
Finish	Powder Coated	■	■	■
Distance Counter Units	Feet, metres	■	■	■
Controls	Friction Brake	■	■	■
Weight	40m / 60m / 100m	40m 15kg / 60m 20kg / 100m 30kg		
Sonde	33Hz / 512Hz / 640Hz	■		■
Dimensions		530 x 365 x 690 cm	690 x 370 x 890 cm	790 x 370 x 960 cm

CAM025		Axial System	Pan & Rotate System	Duo System
Imager	1/4" colour CCD with DSP (Digital Signal Processor)	■	-	■
Effective Pixels	512 x 582	■	-	■
Resolution	470 HTVL	■	-	■
Sensitivity	< 1.0 Lux	■	-	■
Aperture / Field of View	F2.5 / 75	■	-	■
Image Orientation	Auto-levelling	■	-	■
Size	41m (1.16") diameter	■	-	■
Illumination System	4LED	■	-	■
Illumination Intensity	Adjustable (to 12.5k Lux at 150mm)	■	-	■
Construction	Stainless steel	■	-	■
Pipe Compatibility	50mm (2") and up	■	-	■
Pipe Adaptor Kit	3" / 4" / 6" Skids	■	-	■

CAM050		Axial System	Pan & Rotate System	Duo System
Imager	CMOS Colour Camera	-	■	■
Effective Pixels	976 x 496	-	■	■
Camera Sensor	740 TVL	-	■	■
Sensitivity	< 1.0 Lux	-	■	■
Aperture / Field of View	F2.5 / 75°	-	■	■
Image Orientation	Auto-levelling	-	■	■
Size	50mm diameter	-	■	■
Illumination System	4 LEDs	-	■	■
Illumination Intensity	Adjustable (to 12.5k Lux at 150mm)	-	■	■
Focus	Manual variable	-	■	■
Pipe Compatibility	Greater than 60 mm	-	■	■
Aligned Laser Spacing	Dual aligned front facing / single side	-	■	■
Weight	570g	-	■	■

SOFTWARE		Axial System	Pan & Rotate System	Duo System
ProPIPE+ Reporting		■	■	■
WinCan Embedded		■	■	■
WinCan Web		■	■	■
Email and File Share from CCU		■	■	■

ACCESSORIES		Axial System	Pan & Rotate System	Duo System
Reel-to-controller cable		■	■	■
Vehicle power adaptor		■	■	■
Mains power adaptor		■	■	■
Memory	8 GB USD Drive / 8 GB SDHC Card	■	■	■
Accessory Case	with Centring Skids	■	■	■
Minicam Lanyard		■	■	■

OPTIONAL		Axial System	Pan & Rotate System	Duo System
Composite video input cable	Product code: SPP-EVL	□	□	□
Memory card upgrade	16GB / 32GB	□	□	□
Roller skids	130mm / 180mm	□	□	□
Tilting table	Product code: TCC01	□	□	□
All terrain wheels	Product code: SPP-ATA	□	□	□

MINI REEL	
Rod length	30 metre
Weight	Frame including reel: 5.5kg Frame without reel: 1.7kg
Dimensions (with reel)	570 x 240 x 400 cm
Dimensions (without reel)	570 x 240 x 270 cm

## AFTER SALES SUPPORT

### We are Right behind you all of the way

At Minicam we pride ourselves on our commitment to always going the extra mile with our customer care.

After sales support and Service and Repair is available from 8am until 4:30pm Monday Thursday and 8am to 3:15pm on Friday.

Operator and Service Training is available to customers and their employees, at our UK headquarters, your company headquarters or your preferred location. Contact us for full details and costs.



## Contact Us

Whether you're curious about product features, purchasing, servicing or live demonstrations - we are ready to answer all your queries.

Phone: +44 (0) 1942 270524  
Email: [info@minicam.co.uk](mailto:info@minicam.co.uk)  
Website: [minicam.co.uk](http://minicam.co.uk)

Business hours  
Monday: 8am – 4:30pm  
Tuesday: 8am – 4:30pm  
Wednesday: 8am – 4:30pm  
Thursday: 8am – 4:30pm  
Friday: 8am – 3.15pm

### Head Office and Northern Service Centre

**Postal address**  
Minicam Ltd  
Unit 33-35, Ravenscraig Road  
Little Hulton  
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M38 9PU

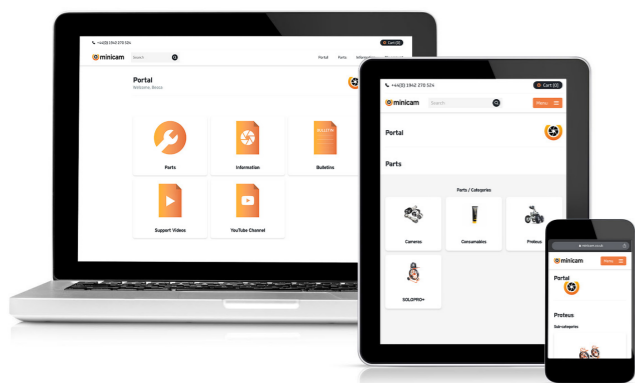


## PARTS PORTAL

Quick and easy online ordering and worldwide delivery.

Appointed Minicam Partners are given access to the online part shop which has the full range of genuine Minicam spares and accessories, all available to order online with same day dispatch if ordered before 3pm\*. The portal stocks parts for all Minicam systems and equipment.

\*Terms and conditions apply - contact us for details



### Southern Service Centre

**Postal address**  
Minicam Ltd  
Unit 41, Acorn Industrial Park  
Crayford  
Kent  
DA1 4AL

We will **be happy to answer**  
any questions you may have...

**Phone**

+ 44 (0) 1942 270524

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A **Halma** company

