

Proteus™

PIPELINE CRAWLER INSPECTION SYSTEM



 **Mini-Cam**
InPipe Innovation



CRP300 Crawler
CAM028 Pan, Rotate & Zoom Camera
ALN300 Auxiliary Light
ALB300 Auxiliary Light/Backeye
QRW140SR/300 Soft Rubber Wheels

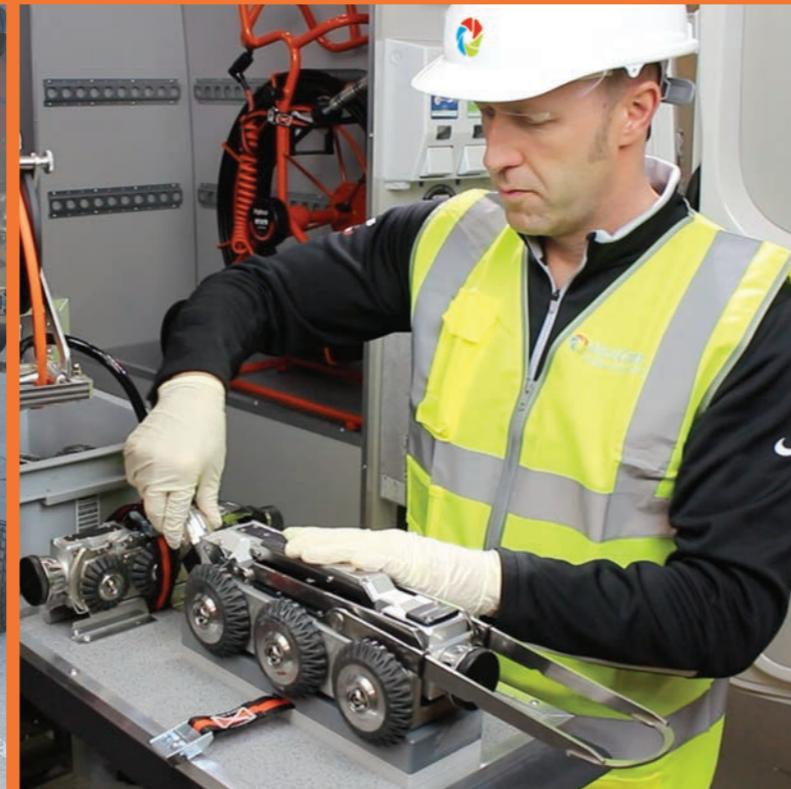
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COVER IMAGE:

RAP300 Motorised Reel, **CCU208** Control Unit, **CRP300** Crawler, **QRW250** Pneumatic Balloon Wheels, **CAM028** Pan, Rotate & Zoom Camera, **ALN300** Auxiliary Light, **ALB300** Auxiliary Light/Backeye.



TRIED & TRUSTED OUR PROTEUS SYSTEM TICKS ALL THE BOXES!

With our experience of innovative solutions for the pipeline inspection industry extending back over 20 years, we have created our most advanced, most capable, most feature-rich system. Proteus™ has been designed to meet your needs in the real world: a system which is highly affordable, reliable, and fully supported by experienced engineers and our “How To” video built-in support. The Proteus system is highly expandable and - most importantly - future proof.

All Proteus crawlers feature CAN bus technology, allowing communication directly between each piece of attached equipment, and can relay control and status information such as activity, speed, pressure, inclination and temperature.

The Proteus range includes a *Lite* system (page 15), which brings together, the well proven performance and reliability of the Proteus family, in a value for money, entry level system. Proteus Lite is the ideal starter kit for a one-man operation, integration into a small inspection van, or a low-cost option for larger companies to use for off-road, remote locations.

Designed and developed in-house, Mini-Cam's Proteus crawlers are now one of the industry's leading systems in daily use, both in the UK and in over 35 countries worldwide. The systems can be installed as part of our Custom Van-Fit service, or be fully portable with the Proteus Portable Storage Trolley (page 41) and the Proteus Power Battery Pack (page 37), giving up to five hours inspection time in a highly compact solution.





SYSTEM CONFIGURATION



ProPIPE+ Software
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CCU 208 Control Unit
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WinCan Embedded
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WinCan Web
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Manual Reel
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Motorised Reel
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CRP90 Crawler
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CRP140 Crawler
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CPL150 Crawler
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CRP150 Crawler
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CRP300 Crawler
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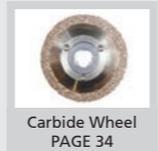
Floatation Raft
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Soft Rubber Wheel
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Wide Axle Wheel
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Carbide Wheel
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High Grip Wheel
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Balloon Wheel
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XL Balloon Wheel
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Auxiliary Light
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Auxiliary Light/Backeye
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Self Levelling Axial Camera
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Pan & Rotate Camera
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Axial Camera
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Pan, Rotate & Zoom Camera
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Lateral Pin Kit
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CCP60R Compatible Coiler
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CCP60D Compatible Coiler
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Roller Skids
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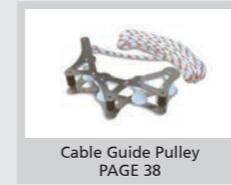
Crawler Cradle
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Tilting Table
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Battery Pack
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Cable Guide Pulley
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Manhole Top Roller
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Brick Egg Stabilizer
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Camera Elevation Platform
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Pro-Laser
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Extra Weight Plate
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Crawler Camera Extender
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4 Button Remote
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Joystick Remote
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Pressure Kit
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Reel Bracket
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Van Guide Pulley
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Cable Reel Guide
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Seesnake® Interface
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Extension Reel



Link Cable



Portable Storage Trolley
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MINIATURE TO MASSIVE PROTEUS HANDLES THEM ALL!

**START
PLANNING YOUR
PROTEUS SYSTEM**
CHECK OUT THE
CONFIGURATION
CHART ON
PAGE 06

With five crawlers, six cameras, two compatible coilers and over twenty accessories, the Proteus system can be configured to perfectly meet your requirements. As your business grows simply add more components from the Proteus range to your kit, enabling you to significantly increase your inspection capabilities for larger diameter pipes and tricky, challenging environments. No matter what the pipe diameter, Proteus crawlers are rugged, agile and rapidly responsive to your commands.

The example shown here demonstrates the scope of the Proteus system. The compact size of our smallest CRP90 crawler allows it to easily survey relined 100mm pipes, while the CRP300 crawler, the largest in the range, with the optional CEP300 Camera Elevation Platform, centres the camera in an impressive 2200mm pipe diameter. For mid-size inspections, there are countless configurations possible with our CRP150, CPL150 and CRP140 Crawlers (page 12) - which one will you drive?

2200mm

CRP300 Crawler with
CAM028 Pan, Rotate & Zoom,
ALN300 Auxiliary Lights,
ALB300 Auxiliary Light/Backeye,
CEP300 Camera Elevation Platform
and QRW250 Balloon Wheels
in a 2200mm diameter pipe

PIPE DIAMETERS
FROM 100mm
TO 2200mm

100mm

CRP90 Crawler with
CAM026 Pan & Rotate Camera.
Elevator Down, inside a
100mm diameter
relined pipe.

PROTEUS FAMILY



A **CRP140** Crawler, **CAM028** Pan, Rotate & Zoom, **ALN300** Auxiliary Light
 B **CRP150** Crawler, **CAM026** Pan & Rotate, **ALB300** Auxiliary Light/Backeye
 C **CRP300** Crawler, **CAM028** Pan, Rotate & Zoom, Dual **ALN300** Auxiliary Lights
 D **CRP90** Crawler, **CAM027** Axial
 E **CPL150** Crawler, **CAM027** Axial

IN-BUILT INNOVATION

KEY FEATURES OF PROTEUS CRAWLERS

STANDARD FEATURES, OPTIONS & MODEL COMPARISONS ON NEXT PAGE



Quick Change Wheel Lock



Soft Rubber Wheels



In-built Inclination Sensor



Articulated Knuckle Connector



Heavy Duty Rear Connector



1 bar Pressure Tight



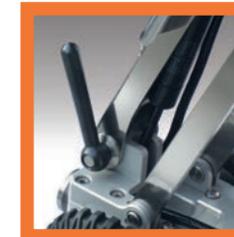
Auxiliary Light or Backeye Mounting



Heavy Duty Camera Connector



Motorised Elevator



Manual Elevator



Multi-Frequency Sonde
33kHz/512Hz/640Hz



Front Connector Protective Cap



Rear Connector Protective Cap



Lowering Arm



Lowering Arm



STANDARD FEATURES

- Compatible with:
 - CAM026 Pan & Rotate
 - CAM026L Pan, Rotate & Laser
 - CAM027 Axial
 - CAM028 Pan, Rotate & Zoom
 - ALN300 Auxiliary Light
 - ALB300 Auxiliary Light/Backeye
- Continuous monitoring of speed, internal pressure, inclination and temperature
- Dual Axis Inclination Sensor**
- Single Auxiliary Light/Backeye Mounting
- Multi-Frequency Sonde**
33kHz / 512Hz / 640Hz
- Steerable High Torque All-Wheel Drive
- Robust Housing
- 1 bar Pressure Tight
- Quick Change Wheel Lock
- In-Built Lowering Arm
- Heavy Duty Camera Connector
- Protective Connector Caps Front and Rear
- Lowering Rope
- Protective Carry Case*
- Tools

*Except CRP300 **Optional on CPL150

Ex ALL CRAWLERS ARE AVAILABLE IN ATEX ZONE 2 APPROVED VERSIONS - SEE PAGE 32

CRP300

Engineered to perform reliably in challenging conditions

Designed for larger pipe diameters with high flow rates, this heavy duty crawler makes easy work of inspections in more difficult environments.

ALL STANDARD FEATURES INCLUDED PLUS

- 6 x QRWX140SR 140mm Rubber Wheels
- Motorised Elevator - Range 135-398mm
- Heavy Duty Rear Connector

OPTIONAL

- Wide Axle Balloon Wheels (page 34)



| Technical Specifications | |
|--------------------------|--|
| Product Code | CRP300 |
| Pipe Sizes | from 300mm - 1000mm to 2200mm with Elevation Platform CEP300 (page 45) |
| Weight | 32.0kg |

CRP150

Highly flexible, modular mid-size crawler

For pipes from 150mm up to 600mm. With the optional PCC01 Crawler Cradle it can even be used in pipes up to 1000mm diameter.

ALL STANDARD FEATURES INCLUDED PLUS

- 6 x QRWX90SR 90mm Rubber Wheels
- Manual Elevator - Range 70-257mm
- Heavy Duty Rear Connector

OPTIONAL

- Carbide Wheels (page 34)
- High Grip Wheel (page 34)



| Technical Specifications | |
|--------------------------|--|
| Product Code | CRP150 |
| Pipe Sizes | from 150mm - 600mm to 1000mm with PCC01 Crawler Cradle (page 39) |
| Weight | 9.25kg |

CPL150

Entry level, mid-size crawler with manual elevator

The perfect companion to the RMPL250 Reel (page 15). CPL150 has the same professional grade quality, reliability and accuracy as our mainline Proteus crawlers.

ALL STANDARD FEATURES INCLUDED PLUS

- 6 x QRWX90SR 90mm Rubber Wheels
- Manual Elevator - Range 60-112mm
- Heavy Duty Rear Connector

OPTIONAL

- Multi-Frequency Sonde
- Inclination Sensor
- Carbide Wheels (page 34)
- High Grip Wheel (page 34)



| Technical Specifications | |
|--------------------------|--|
| Product Code | CPL150 |
| Pipe Sizes | from 150mm - 400mm to 1000mm with PCC01 Crawler Cradle (page 39) |
| Weight | 9kg |

CRP140

Sophisticated mid-size crawler modelled on the CRP150

For pipes from 140mm (even in a relined pipe) up to 600mm, with the optional PCC01 Crawler Cradle it can even be used in pipes up to 1000mm diameter.

ALL STANDARD FEATURES INCLUDED PLUS

- x QRWX90SR 90mm Rubber Wheels
- Motorised Elevator - Range 54-205mm
- Articulated 'Knuckle' Connector

OPTIONAL

- Carbide Wheels (page 34)
- High Grip Wheel (page 34)



| Technical Specifications | |
|--------------------------|--|
| Product Code | CRP140 |
| Pipe Sizes | from 140mm - 600mm to 1000mm with PCC01 Crawler Cradle (page 39) |
| Weight | 9.5kg |

CRP90

Massive capabilities Skilfully miniaturised

CRP90's compact size allows it to easily survey relined 100mm pipes. The motorised elevator enables the camera to be centred in pipes of up to 225mm diameter.

ALL STANDARD FEATURES INCLUDED PLUS

- 6 x QRWX60SR 60mm Rubber Wheels
- Motorised Elevator - Range 40-77mm
- Articulated 'Knuckle' Connector

OPTIONAL

- Carbide Wheels (page 34)
- High Grip Wheel (page 34)



| Technical Specifications | |
|--------------------------|--------------|
| Product Code | CRP90 |
| Pipe Sizes | 90mm - 225mm |
| Weight | 4.50kg |

PROVEN RELIABILITY MODULAR CAPABILITY

Mini-Cam's *Proteus Lite* brings together, the well proven performance and reliability of the Proteus family, in a value for money, entry level system.

Designed and developed in-house, Proteus Lite is the ideal starter kit for a one-man operation, integration into a small inspection van, or a low-cost option for larger companies to use for off-road, remote locations. Proteus Lite provides all the resources required to undertake efficient, easy to perform inspections, and with *ProPIPE+*, *WinCan Embedded* and *WinCan Web* software as standard, you can deliver accurate, detailed reports, instantly on-site.

Future proof and totally modular, when your business budget allows, simply upgrade your Proteus Lite with a larger or smaller crawler, extra cameras and auxiliary lights, or one of the many other Proteus compatible accessories available.



CPL150 Crawler



Proteus Lite System

RMPL250 Reel

- 250m Kevlar Reinforced Cable
- Manual Cable Layering Arm
- 2-Step Quick-Release Meterage Rollers - removable for easy cleaning
- Friction Brake
- Removable Winding Handle
- Spring Loaded Connector
- Powder Coated Frame with Rubber Feet
- Unique Cow Horn locator for easy-fit Control Unit (CCU)

CPL150 Crawler

- Quick-Adjust Manual Elevator
- Lowering Handle
- Heavy Duty Rear Connector
- 6 Soft Rubber Wheels
- Quick-change Wheel Lock

CAM026 Pan & Rotate Camera

See page 25

CCU208 Control Unit

See page 17



Quick-Adjust Manual Elevator



Lowering Handle



Manual Cable Layering Arm



Friction Brake / Hand Brake



2-Step Quick Release Meterage Rollers



Fold-away/Removable Handle

MUCH MORE THAN MEETS THE EYE.

Feature rich, Mini-Cam's CCU208 Control Unit has twin integral joysticks for camera control and crawler manoeuvrability, and an ergonomic soft-touch keypad. User friendly multi-function hot keys control an intuitive on-screen display, to enable quick and accurate navigation of the numerous features which all come as standard on the brain of the Proteus system.

Functionality at your fingertips.



FUNCTIONALITY AT YOUR FINGERTIPS

Use the Proteus control unit to view, record and annotate inspection footage from any composite video source.

Control Meterage

Accurately set the meterage zero offset using the meterage key.

00.0

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.



Survey Features

Access embedded reporting software to create detailed on-site reports



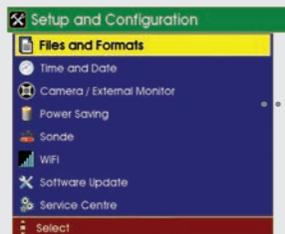
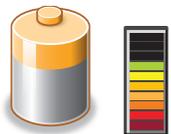
Generate Reports

Use ProPIPE+ Reporting software to create a detailed inspection report with a pipe graph to pinpoint defects.

PDF

Internal Batteries

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



Setup & Configure Preferences

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; choose interface theme, enable power saving options and update firmware.



Capture Footage

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

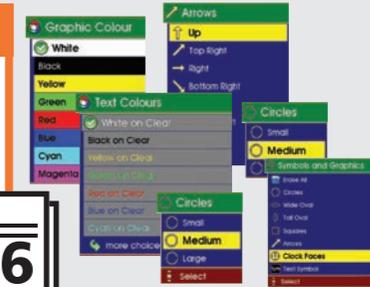


Write Screen Text

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

T

16



Joystick Controls

The left hand joystick controls crawler manoeuvrability. Movement of the Pan & Rotate camera is smooth and effortless using the right hand joystick control. Perform a 360° endless rotation and pan the camera +/- 135°.



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.

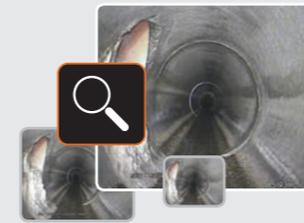


Illumination

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

Alternative Languages

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



Offload Data

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



Review Footage

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



Screens Intensity

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



REPORTING SOFTWARE

ProPIPE+ reporting software, developed by our in-house team of software engineers, enables accurate inspection of sewers with easy post-processing of inspection data. The newly released version generates PDF files and allows users to create professionally presented, detailed reports with illustrated pipe graphs and screen shots, and also features a file sharing feature (see opposite)

Uncomplicated and efficient, ProPIPE+, WinCan Embedded and WinCan Web software is pre-installed as standard on the Proteus control unit, giving the ability to create comprehensive inspection reports on site and instantly share them with colleagues and customers. This gets the results to the client faster, making your business ultra efficient, reducing your administration costs and eliminating those long hours in the office.

Mini-Cam's Proteus control unit is WiFi enabled to allow remote access to stored images and data. Users can simply drag and drop files from control unit to PC, or upload to the Cloud directly on-site. ProPIPE+ doesn't require any additional software to view reports on a PC, simply open the file in Microsoft® Word.



ProPIPE+ and WinCan Embedded software comes pre-installed as standard on Proteus systems



- SAVE TIME AND MONEY
- CREATE A FULL REPORT INSTANTLY, ON-SITE
- ABILITY TO CREATE CUSTOMER SPECIFIC REPORT TEMPLATES
- GENERATE PDF REPORTS
- RE-DESIGNED PAGES FOR EASIER READING
- DETAILED PIPE GRAPH PINPOINTS DEFECTS
- SHARE FILES VIA EMAIL



- DATABASE CAPABILITIES
- WRc3, WRc4 & WRc5 COMPLIANCE
- GIS INTEGRATION
- ADVANCED TECHNOLOGY MODULES
- ENHANCED REPORTING
- SUPPORT FOR NETWORK INSTALLATION
- SUPPORT FOR ENTERPRISE DATABASE (Oracle, SQL)



- SHARE FILES WITH COLLEAGUES & CUSTOMERS
- SHARE PDF REPORTS, IMAGES & FOOTAGE VIA EMAIL
- UPLOAD WINCAN REPORTS VIA THE CLOUD TO WINCAN WEB



The latest release of ProPIPE+ Reporting Software and WinCan Embedded now includes the new File Share feature. Quick and simple to use, with just a 3-step menu selection, users can instantly share PDF reports, images and footage via email, or upload

WinCan Reports to WinCan Web for secure, immediate, team-wide access online. All that is required to start sharing with colleagues and customers is a 3G or 4G Wi-Fi connection. Users can create the hot-spot using their smartphone.

YouTube View ProPIPE+ footage on our YouTube Channel - MinicamTubeUK



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.



CAM028 Pan, Rotate & Zoom Camera with Dual Lasers for diameter and defect measurements



CAM025 AXIAL CAMERA

A Mini-Cam best seller, the CAM025 Self-Levelling Axial camera performs reliably in daily use. The stainless steel housing with flexible spring and heavy duty connector

features four high powered, ultra-bright LED lights and a hard wearing, scratch resistant sapphire glass to protect the camera lens.



Axial Camera

| | |
|--------------|--------|
| Product Code | CAM025 |
|--------------|--------|

See page 49 for technical specification

PAN & ROTATE CAM026

Mini-Cam's CAM026 Pan & Rotate camera features continuous 360° rotation and +/-135°pan. Our signature dual clusters of three high powered

ultra-bright LED lights provide optimum illumination for better clarity of images, and hard wearing, scratch resistant sapphire glass protects the camera lens.



Pan & Rotate Camera

| | |
|--------------|--------|
| Product Code | CAM026 |
|--------------|--------|

See page 49 for technical specification



Selected cameras from Mini-Cam's range are available in ATEX Zone 2 Certified versions (page 32)



CAM027 Axial Camera



ALN300 Auxiliary Light



ALB300 Aux Light with Backeye



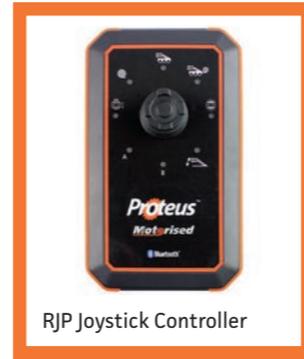
CAM028 PAN, ROTATE & ZOOM CAMERA

Designed and manufactured to our enviable standards, the big-brother to our smaller CAM026 Pan and Rotate this larger, rugged built camera features our signature dual clusters of three powerful, ultra-bright LEDs for maximum illumination, and dual lasers for diameter and defect measurement. Shutter-free horizontal and vertical viewing is smooth and easy with the full 360° pan and rotate function, and our unique quick install connector makes getting ready for pipeline inspection as easy as twist-and-lock.

MOTORISED REEL RAP300•200



BLUETOOTH® CONTROLLERS



RJP Joystick Controller



RCP4 4 Button Controller



Built to the same exacting standards as our manual cable reels, these labour saving motorised reels are sturdy, rugged and built to perform reliably efficient pipeline inspections.

Mini-Cam motorised cable reels are designed for easy one-person operation in remote locations. The reels are fitted with high tensile strength Kevlar reinforced inspection cable. The ultra-smooth operation is provided by the powerful three phase motor and cable layering mechanism for uninterrupted, tangle free pay-out and re-winding. A rigid, clear safety screen prevents contact with the cable whilst coiling.

The reel is operated using the dedicated keys and intuitive on-screen display on the Proteus CCU.



Cable Reel

In the event of an emergency, the reel also features an emergency stop button. The specialised crawler connector provides a waterproof seal and there's a removable drip tray for easy cleaning and maintenance.

Two optional hand-held Bluetooth® controllers are available to remotely control paying-out and rewinding cable, and crawler movement. Choose from the 4 button or Joystick version.

Motorised reels are available in 2 sizes – Large 300m and Small 200m. The 200m reel has secure fixing points for fitting to our PTP01 Portable Storage Trolley (see page 41). Both reels are ideal for being installed in our SurveyPro CCTV Van Fit.

For more information on Mini-Cam Custom Van-fits visit minicam.co.uk/custom-van-fits

Cable available in ATEX ZONE 2 Approved



Emergency Stop Button



Cable Self-Layering Mechanism

Technical Specifications

| | RMP200 | RMP300 |
|----------------------------|-----------------|-----------------|
| Product Code | RMP200 | RMP300 |
| Cable Length | 200metres | 300metres |
| Dimensions LxWxH mm | 530 x 320 x 520 | 530 x 440 x 520 |
| Weight | 32.5kg | 42.5kg |
| Power Supply | 24v | 24v |
| Environmental Protection | IP54 | IP54 |
| Optional Remote Controller | RJP/RCP4 | RJP/RCP4 |

MANUAL REEL RMP300•200•100

Sturdy, rugged and built to withstand harsh environments. Mini-Cam manual cable reels are compact, portable and easy to use. The robust powder coated frame houses high tensile strength Kevlar reinforced inspection cable.

Smooth pay-out and re-winding is performance enhanced by the cable layering mechanism and durable heavy duty turning handle. The specialised crawler connector provides a water-proof seal and there's a removable drip tray for easy cleaning and maintenance.



The reels are available in 3 sizes: small 100m, mid-size 200m and large 300m reels. The small and mid-size reels can be fitted to our Portable PTP01 Storage Trolley (shown right) and on page 41, and the large reel is ideal for being installed as part of our SurveyPro CCTV Van. For more information on Mini-Cam Custom Van-fits visit minicam.co.uk/custom-van-fits

 Cable available in ATEX ZONE 2 Approved

| Technical Specifications | | | |
|--------------------------|-----------------|-----------------|-----------------|
| Product Code | RMP100 | RMP200 | RMP300 |
| Cable Length | 100metres | 200metres | 300metres |
| Dimensions LxWxH mm | 530 x 220 x 520 | 530 x 280 x 520 | 530 x 400 x 520 |
| Weight | 18kg | 27kg | 37kgs |
| Environmental Protection | Splash Proof | Splash Proof | Splash Proof |



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 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.

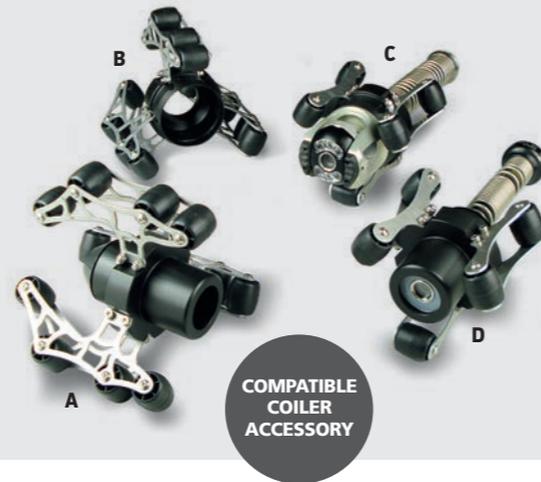
COMPATIBLE COILER ACCESSORY



ROLLER SKIDS

Optimize your view

Roller skids expand the Compatible Coiler for use in 150mm to 450mm pipelines. The three pivoting arms with specially shaped nylon wheels adjust to fit the required pipe diameter, keeping the camera head centred in the pipeline at all times, allowing it to negotiate multiple corners and bends. Manufactured from stainless steel and ABS plastic, the device is sturdy, rugged and corrosion resistant to withstand the punishment of daily field work. No tools or manual adjustments are required



COMPATIBLE COILER ACCESSORY

COMPATIBLE COILER

Companion accessory to the Proteus system

Push rod coiler CCP60R with removable CAM025 Self Levelling Axial camera head, designed to plug directly into the Proteus CCU. Also available as CCP60D (Duo) allowing a CAM026 Pan & Rotate camera to be attached. Robust construction with mobility wheels and a durable powder coated finish.

Centering skids optimize your view in pipes 75mm and larger. The CCP coiler comes complete with a set of three skids and a removal tool.



COMPATIBLE COILER



AVAILABLE WITH 60 METRE OR 100 METRE ROD LENGTHS

A Compatible Coiler with CAM026 Pan & Rotate
B Compatible Coiler with CAM025 Axial Camera

Technical Specifications

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

Technical Specifications

| Compatibility | | Product Code |
|---------------|-----------------------|--------------|
| A | 180mm Skid for CAM025 | ASS-002-009 |
| B | 180mm Skid for CAM026 | ASS-001-955 |
| C | 130mm Skid for CAM026 | ASS-002-160 |
| D | 130mm Skid for CAM025 | ASS-002-008 |

Centering Skids

| Supplied with CCP60/100 | |
|-------------------------|-------------------|
| C | 4inch Skid |
| D | 6inch Skid |
| E | Protection Skid |
| F | Skid Removal Tool |



Technical Specifications

| | |
|--------------------------|-------------------|
| Product Code | CCP60 / CCP100 |
| Temperature Range | -20°C ~ +50°C |
| Dimensions H x W x D | 890 x 360 x 690mm |
| Weight (without CCU) | 21.3kg |
| Environmental Protection | IP54 |

ATEX CAMERAS



CAM026EX
ATEX Pan & Rotate Camera



CAM028EX
ATEX Pan, Rotate & Zoom Camera



ALB300EX
ATEX Auxiliary Light/Backeye



EASY DEPLOYMENT AND RETRIEVAL

Using the in-built lowering device

BACK-EYE CAMERA

Capture images from behind the camera

PAN & ROTATE

360° continuous rotation and +/- 135°Pan

DUAL AUX LIGHTS

Optimum illumination for image clarity

KEEP ON TRACK

Heavy duty 250mm pneumatic balloon wheels

ABOVE: **CRP300EX** Crawler, **CAM026EX** Pan, Rotate Camera, **ALN300** Auxiliary Light, **ALB300** Auxiliary Light/Backeye, **QRW250** Pneumatic Balloon Wheels.

ATEX APPROVED

UNCOMPROMISING PERFORMANCE AND SAFETY



Proteus™ ATEX crawlers have been engineered, built and tested for safe use in some of the most dangerous situations, without compromising on any of the features and benefits of our other Proteus crawlers. All our crawlers are available in ATEX approved versions which make working in ZONE 2 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 use of electronic devices.

ATEX crawlers have all the features, functionality and agility of the standard versions, and offer the same professional-grade quality, reliability and accuracy our customers expect from the Proteus brand.

The Proteus ATEX crawlers feature as standard: built-in height adjustment, multi-frequency SONDE, lowering device, and variable wheel size options using our unique quick-release locking system.

RIGHT: **CRP150EX** Crawler
CAM026EX Pan & Rotate Camera
QRW140HG/150 140mm High Grip Wheels
QRW90R/150 90mm Soft Rubber Wheels



CRAWLER WHEELS



Our specially designed wheels offer significant performance benefits in various pipe diameters and for specific operating conditions.

SOFT BLACK RUBBER

Black, soft rubber tyres developed to provide improved traction in regular pipes.

Available in four sizes and Wide Axle



IMPROVED TRACTION



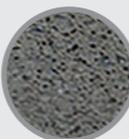
HIGH GRIP

Hard wearing carborundum manufactured with a deep bevel profile to provide improved traction in wet and greasy pipes.

Available in three sizes and Wide Axle



FOR WET & GREASY PIPES



CARBIDE

Fragmented copper particles fused to an heavy duty stainless steel body.

Available in four sizes and Wide Axle



FOR PLASTIC PIPES



PNEUMATIC BALLOON

Heavy duty, 250mm wide tyres designed to improve performance on our large Proteus CRP300 crawler. Optional for Crawler Cradle PCC01.

Available in one size and Wide Axle



RUGGED HEAVY DUTY

QUICK RELEASE LOCK

Proteus crawlers feature Mini-Cam's unique, patented wheel lock device. This makes it easy to change the crawler wheel type to suit the size and condition of the pipe. Using the supplied 4mm Hex T-Bar driver, the operation is quick and simple with no other tools required.

[YouTube](#) View the Changing Wheels "HOW-TO" video at [MinicamTubeUK](#)



WIDE AXLE WHEELS

Extend the capability of your crawler. Quick and easy to attach, wide axle wheels provide instant extra width for inspections in wider pipe diameters.

Wide axle wheels are available in Soft Black Rubber, Carbide and High Grip

| Wheel Type | To fit CRP90 | To fit CRP150/CPL150 | To fit CRP300 | Recommended Pipe Diameter |
|----------------------------------|--------------|----------------------|---------------|---------------------------------------|
| Soft Black Rubber Wheels | | | | |
| 60mm Wheel | QRW60SR/90 | - | - | 100mm |
| 90mm Wheel | QRW90SR/90 | QRW90SR/150 | - | 150mm |
| 90mm Extra Large Wheel | QRW90XLSR/90 | - | - | 150mm |
| 115mm Wheel | - | QRW115SR/150 | - | 200 to 300mm |
| 140mm Wheel | - | QRW140SR/150 | QRW140SR/300 | 300 to 450mm (150) 300 to 600mm (300) |
| 140mm Extra Large Wheel | - | QRW140XLSR/150 | - | 450 to 600mm |
| Carbide Wheels | | | | |
| 60mm Carbide Wheel | QRW60CB/90 | - | - | 100mm |
| 90mm Carbide Wheel | QRW90CB/90 | QRW90CB/150 | - | 150mm to 200mm (90) 150mm (150) |
| 90mm Extra Large Carbide Wheel | QRW90CBXL/90 | - | - | 200mm to 300mm (90) |
| 115mm Carbide Wheel | - | QRW115CB/150 | - | 200mm to 300mm |
| 140mm Carbide Wheel | - | QRW140CB/150 | - | 300mm to 450mm |
| High Grip Wheels | | | | |
| 90mm High Grip Wheel | QRW90HG/90 | QRW90HG/150 | - | 150mm to 200mm |
| 90mm Extra Large High Grip Wheel | QRW90HGXL/90 | - | - | 200mm to 300mm |
| 115mm High Grip Wheel | - | QRW115HG/150 | - | 200mm to 300mm |
| 140mm High Grip Wheel | - | QRW140HG/150 | - | 300mm to 450mm |
| Pneumatic Balloon Wheels | | | | |
| 250mm Wheel | - | - | QRW250 | 600mm to 1000mm |
| 250mm Extra Large Wheel | - | - | QRW250XL | 600mm to 1000mm |

RIGHT: CRP150EX Crawler
CAM026EX Pan & Rotate Camera
QRW140HG/150 140mm High Grip Wheels
QRW90R/150 90mm Soft Rubber Wheels



CCU TILTING TABLE

Customise 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° forwards and 75° backwards, with a full unobstructed 360° horizontal rotation. No tools are required, simply attach using the adjustable clamps.



You Tube
View on our YouTube Channel
MinicamTubeUK

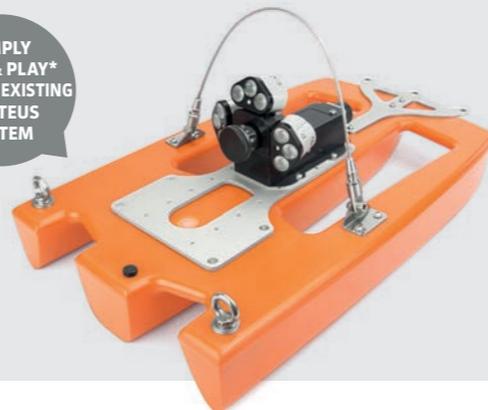
| Technical Specifications | |
|--------------------------|-------------------|
| Product Code | TTC01 |
| Dimensions LxWxH | 350 x 300 x 270mm |
| Weight | 3kg |

FLOATATION RAFT

Pipe inspection in flowing water just got easier!

Eliminate the need for man-entry. The raft features three powerful angled auxiliary LED ultra-bright light modules, to illuminate pipes in excess of 2000mm. Small enough to be lowered down most common sizes of manhole cover, the compact design allows inspection capabilities in pipes from 600mm. An in-built lowering loop makes for quick and easy deployment and retrieval, and the floatation plate ensures the device is perfectly balanced to eliminate rolling.

SIMPLY PLUG & PLAY* WITH AN EXISTING PROTEUS SYSTEM



| Technical Specifications | |
|--------------------------|-------------------|
| Product Code | FRP01 |
| Dimensions LxWxH | 680 x 420 x 200mm |
| Weight (without camera) | 5.8kg |
| IP Rating | IP68 |

*Additional software may be required

PROTEUS POWER BATTERY PACK

Portable power... where will it take you?

No need to rely on vehicle or mains power. Mini-Cam's unique Proteus Power Battery Pack enables pipeline inspections in the most remote locations with in excess of 5 hours inspection time*. The rugged pack is quick



Please Note: Charging unit shown above for illustration only, not included with Proteus Power Pack. Charging Unit purchased separately. *Battery life dependant on operating conditions.

| Technical Specifications | |
|--------------------------|-------------------|
| Product Code | BPP24 |
| Dimensions L x W x H | 280 x 100 x 120mm |
| Weight | 4kg |
| Optional | Carry Case |

Dangerous goods shipping conformity required - please contact us for details



and easy to connect and features output short circuit protection and LED charge status indication. The battery is charged using the standard Proteus power supply unit.

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MinicamTubeUK



OPTIONAL EASY ACCESS CARRY CASE

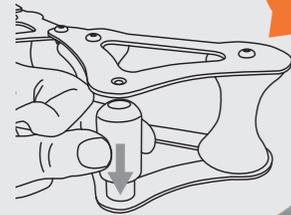
CABLE GUIDE PULLEY

For smooth guiding of inspection cable during survey

Reduces wear by preventing kinks and chaffing, and assists in the smooth guiding of inspection cable during your survey. Comes complete with 12metres of rope and features a quick release mechanism to aid feeding the cable through the rollers.



QUICK RELEASE MECHANISM



Technical Specifications

| | |
|-------------------|------------------|
| Product Code | CGP01 |
| Dimensions LxWxH | 485 x 75 x 105mm |
| Rope Length | 12metres |
| Weight (inc rope) | 2.8kg |

MANHOLE TOP ROLLER

For smooth guiding of inspection cable during survey

Reduces wear by preventing kinks and chaffing, and assists in the smooth guiding of inspection cable during your survey. Fully adjustable to fit most manhole sizes.



Technical Specifications

| | |
|------------------|-------------------|
| Product Code | TRP01 |
| Dimensions LxWxH | 650 x 290 x 140mm |
| Weight | 4.45kg |

CRAWLER CRADLE

Improved inspection capabilities

The *Crawler Cradle* adapts Mini-Cam's CRP150, CPL150, and CRP140 crawlers for use in large diameter pipes. Versatile, quick and easy to attach, the cradle provides extra ground clearance enabling improved inspection capabilities in pipes and culverts up to 1000mm in diameter.

This robust, steerable, 4-wheel drive cradle is driven by the crawler, and features a unique gear selector, enabling the user to change between high speed and high torque operation. Exclusively compatible with Proteus CRP150, CPL150, and CRP140 crawlers, PCC01 comes supplied with four 220mm balloon wheels.

View on our YouTube Channel [MinicamTubeUK](#)



For heavily silted pipes we recommend the optional 250mm Balloon Wheel (QRW250/150), which are also required to centralise the crawler in 1000mm diameter pipes.



UNIQUE GEAR SELECTOR



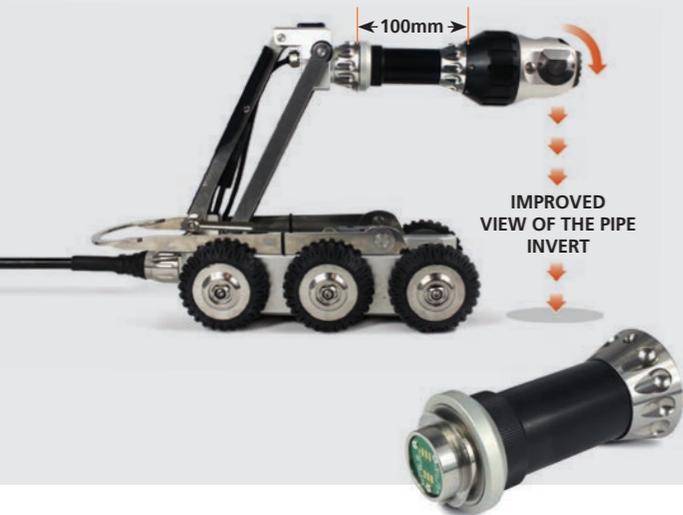
Technical Specifications

| | |
|------------------|--------------------------|
| Product Code | PCC01 |
| Compatibility | CRP150 / CPL150 / CRP140 |
| Dimensions LxWxH | 410 x 265 x 220mm |
| Weight | 7.6kg |
| Fixings | 2 Axle Adaptors & Bolts |

CRAWLER CAMERA EXTENDER

Extends the camera position 100mm forwards

The *Crawler Camera Extender* moves the camera position 100mm forwards, extending the camera beyond the crawler. When the camera is positioned 90° downwards, this provides a view of the invert of pipeline, and not the crawler.



Technical Specifications

| | |
|-------------------|-----------------|
| Product Code | CCE01 |
| Dimensions LxWxH | 115 x 50 x 50mm |
| Weight (inc rope) | 302g |

EXTRA WEIGHT PLATE

Extra downforce and traction for the crawler

Exclusively compatible with Proteus CRP150, CPL150 and CRP140 crawlers, the 2.5kg *Extra Weight Plate* gives the crawler extra downforce to allow for more traction in tricky pipe conditions. Quick to attach, the assembly is supplied with fixing bolts and washers.



Technical Specifications

| | |
|------------------|--------------------------|
| Product Code | EWP01 |
| Compatibility | CRP150 / CPL150 / CRP140 |
| Dimensions LxWxH | 264 x 80 x 14mm |
| Weight | 2.5kg |
| Supplied with | Fixing Bolts & Washers |

PORTABLE STORAGE TROLLEY

Complete mobility for your Proteus system

Eliminate health hazardous lifting, and time consuming carrying to your remote work site. Engineered to allow for the mobile operation of your Proteus Inspection System in difficult to reach areas, such as inside buildings, or other situations a distance away from your vehicle. The trolley securely holds everything you need to efficiently undertake your pipeline inspection. Simply wheel the unit to your location, connect a camera and crawler and you're up and running in minutes. With the added convenience of Mini-Cam's unique Proteus Power Pack (see page 37), there's no need to rely on generator or mains power. The power pack enables pipeline inspection in the most remote locations with up to 5 hours* inspection time.



Designed with simplicity in mind, the portable trolley will hold a Control Unit, Manual or Motorised 200m or 300m Cable Reel, Proteus Power Battery Pack and a Protective Accessory Case, making the full Proteus system highly portable and suitable for one-man operation in remote locations.

Technical Specifications

| | |
|------------------|--------------------|
| Product Code | PTP01 |
| Dimensions WxHxD | 650 x 1150 x 750mm |
| Weight (unladen) | 9.75kg |

Please Note: Equipment shown on trolley not included with PTP01
*Battery life dependant on operating conditions.

REMOTE CONTROLLERS

Instant control with Bluetooth® wireless connectivity

The 4 Button Remote Control and Joystick Remote Control are used to control a Crawler and Motorised Cable Reel using Bluetooth® wireless technology. The Motorised Cable Reel can be controlled directly without the presence of the Control Unit. A handy size and lightweight, the controllers are simple to use and have an internal battery life in excess of 2 years. Supplied with full instructions.



RCP4 4 Button Controller

RJP Joystick Controller

| Technical Specifications | | |
|--------------------------|-----------------|-----------------|
| Product Code | RCP4 | RJP |
| Compatibility | RAP300/RAP200 | RAP300/RAP200 |
| Dimensions W x L x D mm | 88 x 146 x 27mm | 88 x 146 x 27mm |
| Weight | 175g | 175g |

SEESNAKE® INTERFACE

Exclusively compatible with Mini-Cam Control Units

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



Also available to fit Mini-Cam SOLOPro+ Control Units Product Code: SSP02

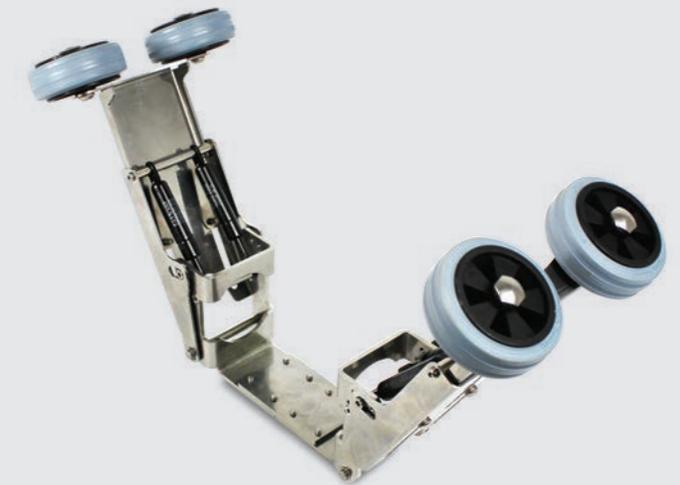
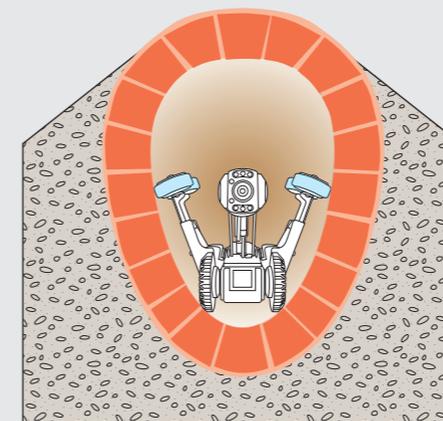
| Technical Specifications | |
|--------------------------|----------------------|
| Product Code | SSP01 |
| Compatibility | Proteus Control Unit |
| Dimensions WxLxD | 50 x 268 x 40mm |
| Weight | 115g |

BRICK EGG STABILIZER

Eliminates rolling over of the crawler

A simple quick fit to our Proteus Crawler, the Brick Egg Stabilizer stops the crawler from rolling over during inspections in pipes with an egg-shaped profile. Exclusively compatible with Mini-Cam's Proteus CRP300, CRP150, CPL150 and CRP140 crawlers.

Compatibility:
 BEP300 fits Proteus CRP300
 BEP150/140 fits Proteus CRP150, CPL150 and CRP140



| Technical Specifications | |
|--------------------------|-------------------|
| Product Code | BEP300 |
| Compatibility | CRP300 |
| Dimensions LxWxH | 450 x 190 x 220mm |
| Weight | 2.95kg |

| Technical Specifications | |
|--------------------------|----------------------|
| Product Code | BEP150/140 |
| Compatibility | CRP150/CPL150/CRP140 |
| Dimensions LxWxH | 375 x 180 x 210mm |
| Weight | 2.05kg |

CABLE REEL GUIDE

Smooth friction-free cable guiding

Reduces friction and provides additional guidance for the cable when paying out and rewinding. Also brushes and cleans the cable when rewinding. Exclusively compatible with Mini-Cam Motorised and Manual 300 metre and 200 metre Cable Reels.



| Technical Specifications | | |
|--------------------------|-------------------|-------------------|
| Product Code | CGP300 | CGP200 |
| Compatibility | RAP300 / RMP300 | RAP200 / RMP200 |
| Dimensions LxWxH | 540 x 490 x 175mm | 540 x 370 x 175mm |
| Weight | 3.5kg | 2.9kg |

VAN GUIDE PULLEY

Smooth friction-free cable guiding

Reduces friction and provides additional guidance for the cable when paying out and rewinding. Exclusively for use with Mini-Cam Motorised and Manual, 300 metre and 200 metre Cable Reels.



| Technical Specifications | |
|--------------------------|-------------------------|
| Product Code | VGP01 |
| Compatibility | RAP300/200 & RMP300/200 |

CAMERA ELEVATION PLATFORM

Increase your inspection capabilities

This telescopic elevator quickly attaches to the CRP300 Crawler and can be manually moved up or down to increase inspection capabilities up to 2200mm. Interface for cameras and auxiliary lights.

| Technical Specifications | |
|--------------------------|--|
| Product Code | CEP300 |
| Connections | Camera connection (front) Lifter connection (rear) 2 x additional lamp connections (side) 1 x additional lamp connection with Backeye Camera (top connector) |
| Top camera position | 1090mm Top camera position (pipe centre) using pneumatic balloon wheels |
| Mid camera position | Approx 830mm Mid camera position (pipe centre) with extended plate |
| Low camera position | 565mm Low camera position (pipe centre) with pneumatic wheels |
| Dimensions L x W x H | 142 x 130 x 476 mm |
| Weight | 5.7kg |



REEL BRACKET

Use the reel as a CCU holder, for portability in remote areas

This lightweight tubular bracket is quick and easy to attach, using the bolts and washers supplied. The bracket holds the control unit firmly in place in a comfortable working position for the user. Available in 2 sizes.



Technical Specifications

| Product Code | RBP01 | RBP02 |
|----------------------|-----------------|-----------------|
| Compatibility | Fits 200m Reel | Fits 300m Reel |
| Dimensions LxWxH mm | 350 x 215 x 118 | 430 x 215 x 118 |
| Weight (inc fixings) | 675g | 735g |

PRESSURE KIT

All you need to purge a Proteus crawler and camera head

Pressurisation is safe, quick and easy. Two kits are available: Standard CO₂ and a Nitrogen version for ATEX equipment. Supplied in a handy padded carry case.

Replacement cylinders can be purchased separately.



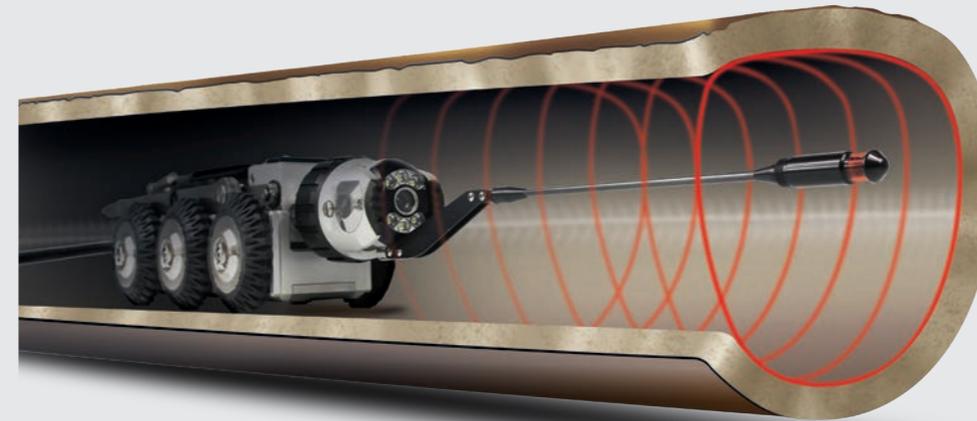
Technical Specifications

| Product Code | Description |
|--------------|---------------------------------------|
| PKP01 | Standard CO ₂ Pressure Kit |
| PKP02EX | ATEX Nitrogen Pressure Kit |

PRO LASER

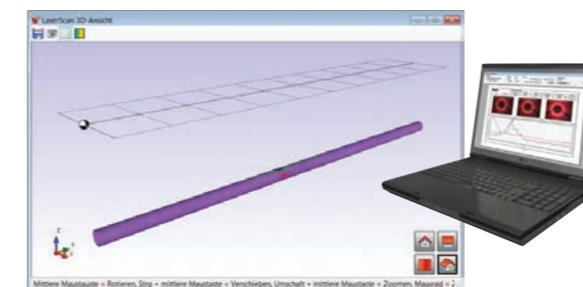
Pinpoint accurate laser profiling of pipes and sewers

ProLaser is the perfect partner for any CCTV inspection system and provides accurate analysis of the true pipe condition prior to and after rehabilitation.



Data Analysis and Delivery

The Mini-Cam Laser profiler has been designed to provide accurate and repeatable pipe geometry for many pipeline conditions. Simply attach the device to your CAM026 and WinCan will do the rest! All results are automatically calculated and can be delivered via WinCan. The WinCan software generates the report automatically, including diameter, ovality, capacity and also provides 3-dimensional XYZ-data.



WHY DO YOU NEED A PIPE PROFILER?

If you are a municipality, consulting engineer or contractor, the Profiler is a necessary tool for the analysis of the true pipe condition prior to and after rehabilitation. When used as a video survey tool it can provide accuracy up to 1mm when measuring pipe size, deformation, erosion encrustation, debris, grease, flows, lateral protrusion, surface damage and holes.

CRAWLERS • CCU • REEL

| | | CRP300 | CRP150 | CRP140 | CRP90 | |
|-----------------------|-----------------------------------|--|----------------------------------|----------------------------------|----------------------------------|---|
| CRAWLERS | Pipe Diameter | 300 - 1000mm | 150 - 600mm | 140 - 600mm | 90 - 225mm | |
| | Weight | 32 kg | 9.25 kg | 9.25 kg | 4.5 kg | |
| | Pressure Depth Rating | 1 bar (14.50psi) | 1 bar (14.50psi) | 1 bar (14.50psi) | 1 bar (14.50psi) | |
| | Built-in Elevator | Motorised | Manual | Motorised | Motorised | |
| | Quick Change Wheel Lock | ■ | ■ | ■ | ■ | |
| | Optional Large Wheels | 3 size options | 4 size options | 4 size options | 2 size options | |
| | Multi-Frequency Sonde Transmitter | ■ | ■ | ■ | ■ | |
| | Inclination Sensor | ■ | ■ | ■ | ■ | |
| | Heavy Duty Connector | ■ | ■ | ■ | ■ | |
| | Flexible Rear Connector | □ | □ | ■ | ■ | |
| Dimensions | L x W x H mm | 470 x 233 x 195 | 307 x 133 x 110 | 386 x 133 x 108 | 296 x 87 x 72 | |
| ATEX Zone 2 Certified | Ex | □ | □ | □ | □ | |
| CCU208 | Operating System | Linux | ■ | ■ | ■ | ■ |
| | Screen | XGA (1024 x 768 pixels) Daylight Viewable | ■ | ■ | ■ | ■ |
| | Interfaces | RS232, USB 2.0 | | | | |
| | Internal Storage | Internal Solid State | | | | |
| | External Storage | 2 x USB 2.0 /SDHC | | | | |
| | File Format | MPEG-4 / JPEG Stills | | | | |
| | Weight | 5.5 kg (12.12lb) | | | | |
| Dimensions | L x W x H mm L x W x H inches | 430 x 280 x 150 16.9 x 11 x 6 | 430 x 280 x 150 16.9 x 11 x 6 | 430 x 280 x 150 16.9 x 11 x 6 | 430 x 280 x 150 16.9 x 11 x 6 | |



| | | | |
|---------------------|------------------------|----------------|----------------|
| RMPL250 REEL | Construction | Welded Steel | ■ |
| | Finish | Powder Coated | ■ |
| | Distance Counter Units | Feet, Metres | ■ |
| | Controls | Friction Brake | ■ |
| | Weight | | 29.3kg |
| | Dimensions | (L x W x H) cm | 550 x 385x 700 |

| | | | |
|-----------------------|-----------------------------------|------------------|------------------|
| CPL150 CRAWLER | Pipe Diameter | 150 - 400mm | ■ |
| | Pressure Depth Rating | 1 bar (14.50psi) | ■ |
| | Built-in Elevator | Manual | ■ |
| | Quick Change Wheel Lock | | ■ |
| | Optional Large Wheels | 4 size options | □ |
| | Multi-Frequency Sonde Transmitter | | □ |
| | Inclination Sensor | | □ |
| | Heavy Duty Connector | | ■ |
| | Weight | | 9.25 kg |
| | Dimensions | (L x Wx H) mm | 320 x 85 x 100mm |
| ATEX Zone 2 Certified | Ex | □ | |

- Standard
- Optional
- Standard
- Optional



Self Levelling Axial



Pan & Rotate

CAMERAS & AUXILIARY LIGHTS

| | | |
|--------------------|--------------------------|---|
| CAM025 | Imager | 1/4" colour CCD with DSP (Digital Signal Processor) |
| | Standard | PAL |
| | Effective Pixels | 512 x 582 |
| | Resolution | 470 HTVL |
| | Sensitivity | < 1.0 lux |
| | Aperture/Field of View | F2.5 / 75° |
| | Image Orientation | Auto-levelling |
| | Dimensions | 220 x 41 x 41mm (8.6 x 1.61 x 1.61in) |
| | Weight | 0.617kg (1.36lb) |
| | Illumination System | 4 LED |
| | Illumination Intensity | Adjustable (to 12.5k lux at 150mm) |
| | Pressure Depth Rating | 1 bar (14.50psi) |
| | Construction | Stainless Steel |
| Pipe Compatibility | 50mm (2") and up | |
| Sonde | 33 kHz / 512 Hz / 640 Hz | |
| Pipe Adaptor Kit | 3" / 4" / 6" Skids | |

| | | |
|--------------------|--------------------------|---|
| CAM026 | Imager | 1/4" colour CCD with (Digital Signal Processor) |
| | Standard | PAL |
| | Effective Pixels | 512 x 582 |
| | Resolution | 470 HTVL |
| | Sensitivity | < 1.0 lux |
| | Aperture/Field of View | F2.5 / 75° |
| | Image Orientation | Auto-levelling |
| | Dimensions | 120 x 74 x 74mm (4.7 x 2.9in x 2.9in) |
| | Weight | 0.864kg (1.90lb) |
| | Illumination System | 6 LED |
| | Illumination Intensity | Adjustable (to 12.5k lux at 150mm) |
| | Pressure Depth Rating | 1 bar (14.50psi) |
| | Construction | Aluminium / Stainless Steel |
| Pipe Compatibility | 100mm (6") and up | |
| Sonde | 33 kHz / 512 Hz / 640 Hz | |
| Pipe Adaptor Kit | 6" / 8" Skids | |



Axial



Pan, Rotate & Zoom



Auxiliary Light



Auxiliary Light & Backeye

| | | |
|---------------|------------------------|------------------------------------|
| CAM027 | Standard | PAL |
| | Pressure Depth Rating | 1 bar (14.50psi) |
| | Power consumption | 6W |
| | Dimensions (L x W x H) | 62 x 52 x 52mm (2.4 x 2.0 x 2.0in) |
| | Weight | 0.25kg (0.55lb) |

| | | |
|---------------|------------------------|-------------------------------------|
| CAM028 | Standard | PAL |
| | Pressure Depth Rating | 1 bar (14.50psi) |
| | Power consumption | |
| | Zoom | 10x optical 12x digital |
| | Lasers | Twin |
| | Dimensions (L x W x H) | 143 x 80 x 80mm (5.6 x 3.1 x 3.1in) |
| Weight | 1.15kg (2.2lb) | |

| | | |
|---------------|------------------------|------------------------------------|
| ALN300 | Standard | PAL |
| | Pressure Depth Rating | 1 bar (14.50psi) |
| | Power Consumption | 6W |
| | Dimensions (L x W x H) | 51 x 68 x 50mm (2.0 x 2.6 x 1.9in) |
| | Weight | 0.23kg (0.5lb) |

ALN300 is in-built as standard on the CRP300

| | | |
|---------------|------------------------|------------------------------------|
| ALB300 | Standard | PAL |
| | Pressure Depth Rating: | 1 bar (14.50psi) |
| | Power Consumption: | 6W |
| | Dimensions (L x W x H) | 84 x 68 x 50mm (3.3 x 2.6 x 1.9in) |
| | Weight | 0.30kg (0.7lb) |



All cameras (except CAM027) above are available in ATEX ZONE 2 approved

SERVICE SUPPORT FOR JUST WHEN YOU NEED US MOST

Mini-Cam's reputation for efficient, quality service is now mobile nationwide*. Our dedicated, highly skilled service technicians are available to offer routine maintenance and emergency repairs, both on-site and at your depot.

Our Service Support vehicle is stocked with a range of replacement parts and fault finding equipment that will cover most eventualities. Mini-Cam customers who need an urgent repair, can take advantage of this service.

- Competitive Pricing
- Rapid Service Turn-Around
- Loan equipment provided** whilst yours is repaired on-site
- Replacement parts readily available
- Minimize downtime



SERVICE SUPPORT LINE

For further information and to request a Service Support visit please contact:
Glenn Guest - Service Manager
Office: 01942 270524
8am – 5pm Monday to Friday
Email: servicevan@minicam.co.uk

*Service Support coverage is Mainland UK only and does not include Scottish Highlands, Scottish Islands, Isle of Wight, Isle of Man, Dublin, Eire, Channel Islands. **Subject to availability.

AFTER SALES SUPPORT WE ARE RIGHT BEHIND YOU ALL OF THE WAY!



At Mini-Cam 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 5pm Monday to Thursday, and 8am until 3.45pm 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.

PARTS E-SHOP QUICK, EASY ONLINE ORDERING AND WORLDWIDE DELIVERY*

Appointed Mini-Cam Partners are given access to the online parts shop which has the full range of genuine Mini-Cam spares and accessories, all available to order online with same day despatch if ordered before 3pm*. The e-shop stocks parts for all Mini-Cam systems and equipment. www.minicam.co.uk



*Terms and conditions apply - contact us for details



HOW TO FIND US



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Saturday & Sunday Closed

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