

Proteus™

PIPELINE CRAWLER INSPECTION SYSTEM

COMM-CO

Communication today and tomorrow

FUTURE PROOF AND EXPANDABLE PIPELINE INSPECTION SOLUTION

 **OPTICON**
benelux

 **Mini-Cam**
InPipe Innovation



Crawler Proteus CRP300
Camera CAM028
Auxiliary Light/Backeye ALB300
Auxiliary Light ALN300
Wheels QRW140SR/300

TRIED & TESTED

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.

INTELLIGENT, FLEXIBLE, RUGGED

ENGINEERED TO MAKE EASY WORK OUT OF CHALLENGING ENVIRONMENTS

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.

Designed and developed in-house, Mini-Cam’s Proteus crawlers are part of an entry level modular system for the pipeline inspection market, and can be installed as part of our Custom Van-Fit service (UK only - visit www.minicam.co.uk/custom-van-fits), or be fully portable with the Proteus Storage Trolley and Proteus Power Pack (see page 25), giving up to five hours of inspection in a highly compact solution.



FUNCTIONALITY AT YOUR FINGERTIPS



Capture Footage

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

Enter Observations

Use optional data-entry module to log inspection findings.

Review Footage

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

Generate Reports

Use optional reporting module to create an inspection report, then transfer it to USB media for on-site delivery.

Offload Data

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

Write Screen Text

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

Control Hardware

Set sonde frequency, adjust illumination, and zero/offset meterage.

Configure Preferences

Set language and date/time; establish file formats and naming conventions; adjust camera parameters; choose interface theme and power-saving scheme; update firmware.



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



INDUSTRY STANDARD REPORTING SOFTWARE

ProPIPE Report was designed and developed by Mini-Cam's in-house team of software engineers. It enables users to create professionally presented, detailed reports while on site. Quick and easy-to-use, ProPIPE Report streamlines pipeline inspection diagnostics, making your business ultra efficient, reducing your costs and eliminating those long hours in the office.



WinCan SOFTWARE

You can also export observation data seamlessly to WinCan software (sold separately) and benefit from; database capabilities • WRc3 and WRc4 compliance • GIS Integration • advanced technology modules • enhanced reporting • support for network installation and enterprise databases (Oracle, SQL).



CRP90 KEY FEATURES

- Motorised Elevator
- Optional Cameras
- Auxiliary Backeye
- Inclination Sensor
- Optional Large Wheels
- Optional Performance Wheels
- Flexible Rear Connector
- In-built Lowering Device
- Quick Change Wheel Lock



Heavy Duty Connector
The robust and extremely rugged heavy duty connector, features our unique lock system which requires no tools to connect and dis-connect.



In-built Lowering Arm
For fast and easy deployment and retrieval of the crawler



Motorised Elevator Arm
The in-built motorised elevator allows for quick and easy centring of the camera in pipe sizes up to 300mm (12in).

**A NEW ADDITION TO THE PROTEUS RANGE
CRP90 IS THE SMALLEST
CRAWLER WE HAVE DEVELOPED**

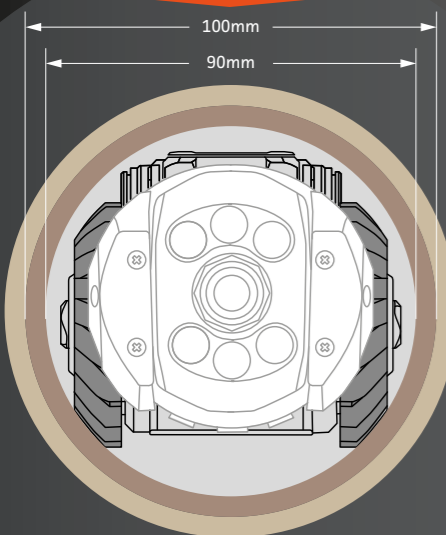
Proteus™ CRP90

MASSIVE CAPABILITIES SKILFULLY MINIATURISED

Proteus™ CRP90 is packed with innovative features including an in-built motorised lift which enables the camera to be centred in pipe diameter of up to 300mm (12inch), in-built lowering device for quick and easy deployment and retrieval, flexible rear connector to reduce cable stress and Mini-Cam's patented quick-change wheels.



**THE CRP90'S COMPACT SIZE
ALLOWS IT TO EASILY SURVEY
RELINED 100MM (3.9in) PIPES**



Pan & Rotate Camera
Precision camera for optical excellence. with 360° continuous rotation and 135+/- pan.



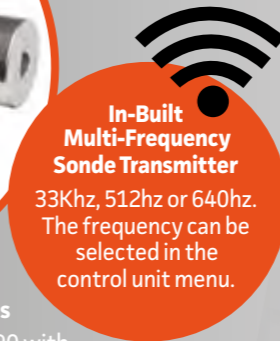
Flexible rear connector
Quick and easy to connect. Provides flexibility to reduce stress on the cable when lowering and retrieving the crawler.



Quick Change Wheel Lock
Designed and developed exclusively by Mini-Cam, our unique patented wheel lock device makes changing wheels quick and easy.



Optional Performance Wheels
Extend the capabilities of the CRP90 with 3 different size wheel options. Carbide and high grip for specific conditions and wide axle for larger pipe sizes.



In-Built Multi-Frequency Sonde Transmitter
33Khz, 512hz or 640hz. The frequency can be selected in the control unit menu.

**PERFECT FOR PIPES
UP TO
300mm
(12inches)**



**Proteus CRP90
Axial Camera CAM027**

INNOVATIVE ACCESSORIES TO MAKE THE JOB EASIER!

Van Guide Pulley VGP01 Reduces friction and provides additional guidance for the cable when paying out and rewinding. Use with Mini-Cam motorised and manual, 300 metre and 200 metre reels.



Cable Reel Guide CGP300/CGP200

Reduces friction and provides additional guidance for the cable when paying out and rewinding. Also brushes and cleans the cable when rewinding. Use with Mini-Cam motorised and manual, 300 metre and 200 metre reels.

Camera Top Housing

Mini-Cam's unique camera lock makes connection quick and easy.



OUR BEST SELLING MID-RANGE
CRAWLER BUILT TO RELIABLY
PERFORM IN HARSH CONDITIONS

Proteus™ CRP150

HIGHLY FLEXIBLE, MODULAR AND EXPANDABLE

CRP150 was the first crawler Mini-Cam developed for its Proteus™ range. Tried, tested and modified to perfection. Our customers have come to rely on the CRP150 time-and-time again for efficient pipeline surveys.

Feature-rich, the CRP150 includes as standard all Mini-Cam's innovative and unique connections, locks, devices and accessories to provide users with probably the most versatile crawler on the market today. The rapidly expanding range of accessories currently being developed ensures that the Proteus CRP300 will remain future-proof.

PERFECT
FOR PIPES
150-600mm
(6 - 24inches)



CRP150 KEY FEATURES



Manual Elevator

The in-built elevator device allows for quick and easy centring of the camera in pipe sizes up to 600mm.



Optional Cameras

Choose from Axial camera (CAM025) or Pan & Rotate (CAM026) with full 360° rotation and Pan 135° +/-



Auxiliary Backeye

The auxiliary light features a colour rear view camera to aid crawler reversing.



Heavy Duty Connector

Our robust, heavy duty lock system requires no tools to connect or dis-connect.



Performance Wheels

4 different size wheel options. Carbide and high grip for specific conditions and wide axle for larger pipe sizes.



Inclination Sensor

The lateral axis detects the crawler roll angle. The longitudinal axis determines pipe inclination and can be recorded in the survey.



In-built Lowering Device

For fast and easy deployment and retrieval of the crawler.



Quick-Change Wheel Lock

Designed and developed exclusively by Mini-Cam, our patented wheel lock device makes changing wheels quick and easy.

CRP150 KEY FEATURES



Camera Elevation Platform CEP300

This telescopic elevator quickly attaches to the CRP300 crawler and can be manually moved up or down to increase inspection capabilities up to 2000mm. Interface for cameras and auxiliary lights.



CRP300 KEY FEATURES

- Electronic Clutch
- Motorised Elevator
- Built-in Multi-Frequency SONDE
- LED Auxiliary Lights
- Optional Cameras
- Auxiliary Backeye
- Inclination Sensor
- Quick Release Wheel Locks
- 4 Wheel Size Options
- Optional Balloon Wheels
- Optional Performance Wheels
- Heavy Duty Connector
- In-built Lowering Device

PERFECT FOR PIPES
300-1000mm
(12 - 40inches)



Proteus™

CRP300

MADE FOR CHALLENGES

Proteus™ CRP300 is a beast of a crawler, substantially solid enough to provide unparalleled inspection possibilities in larger diameter pipes with high flow rates. Made for challenges "The Beast" makes easy work of some of the more difficult environments, and gives even more benefits as part of the wider Proteus system.

The Beast has all the features and functionality of its smaller, more compact partners — CRP90 and CRP150 — and the same professional-grade quality, reliability and accuracy our customers expect from a Proteus crawler.



ATEX CAMERAS



ATEX Pan & Rotate Camera
CAM026EX



ATEX Pan & Rotate Zoom Camera
CAM028EX



ATEX Auxiliary Light with Backeye
ALB300EX



EASY DEPLOYMENT AND RETRIEVAL

Using the in-built lowering device

BACK-EYE CAMERA

Capture images from behind the camera

KEEP ON TRACK

Heavy duty 250mm pneumatic balloon wheels

DUAL AUX LIGHTS

Optimum illumination for image clarity

PAN & ROTATE

360° continuous rotation and 135+/- Pan

UNCOMPROMISING PERFORMANCE AND SAFETY

ZONE 2 COMPLIANT



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.

They have all the features, functionality and agility of the CRP90, CRP150 and CRP300 crawlers with the same professional-grade quality, reliability and accuracy our customers expect from a Proteus crawler.

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



CRP150EX with High Grip Wheels

NEW PAN & ROTATE ZOOM CAMERA

CAM028

The latest addition to the range is the Pan and Rotate Zoom Camera (CAM028). Designed and manufactured to our enviable standards, the big-brother to our smaller Pan and Rotate (CAM026) this larger, rugged built camera features our signature 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 pan and tilt function and full 360° rotation, and our unique quick install connector makes getting ready for pipeline inspection as easy as twist-and-lock.

DUAL LASERS
For diameter and defect measurements



PAN & ROTATE ZOOM
Product Code:
Regular CAM028
⚠️ ATEX CAM028EX

CAMERAS & AUXILIARY LIGHTS

PRECISION CAMERAS FOR OPTICAL EXCELLENCE

Designed and developed in house, Mini-Cam's range of cameras and auxiliary lights include the tried and tested Pan and Rotate (CAM026) with 360° continuous rotation and 135° +/- pan, the forward facing Axial camera (CAM027) with focusing capabilities, the non-back-eye Auxiliary Light (ALN300) and the Auxiliary Light (ALB300) with reverse camera. All feature high powered ultra-bright LED lighting to provide optimum illumination for improved clarity of images. Featuring high powered ultra-bright LED lighting and motorised focus our auxiliary lights provide optimum illumination for better clarity of images.

Highest quality components are sourced from around the world and our skilled technicians assemble and rigorously test the cameras and lights at our UK production facility. Built for longevity the cameras are rugged, with robust and precise connectors, and engineered to perform with excellent optical qualities.

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



AXIAL CAMERA
Product Code:
Regular CAM025
⚠️ ATEX CAM025EX



PAN & ROTATE
Product Code:
Regular CAM026
⚠️ ATEX CAM026EX



AXIAL
Product Code:
Regular CAM027
⚠️ ATEX Unavailable



AUXILIARY LIGHT
Product Code:
Regular ALN300
⚠️ ATEX ALN300EX



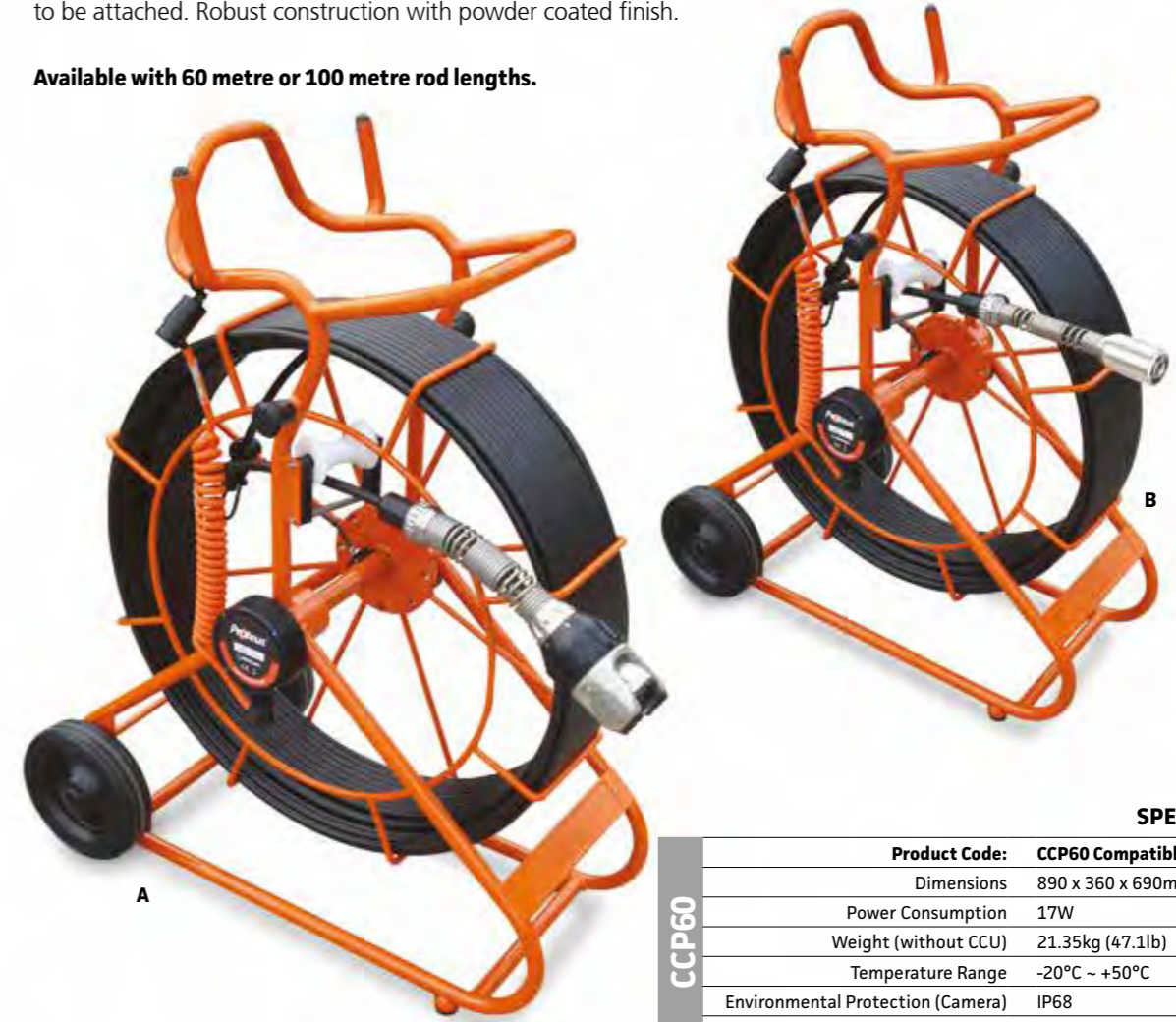
AUX LIGHT WITH BACKEYE
Product Code:
Regular ALB300
⚠️ ATEX ALB300EX



COMPATIBLE COILER

Push rod coiler CCP60R (Ready) with removable self levelling camera head. Designed to plug directly into the Proteus CCU. Also available as CCP60D (Duo) allowing the Pan & Rotate camera (CAM026) supplied with the Proteus crawler to be attached. Robust construction with powder coated finish.

Available with 60 metre or 100 metre rod lengths.



SPECIFICATIONS

CCP60	Product Code:	CCP60 Compatible Coiler
	Dimensions	890 x 360 x 690mm (H x W x D)
	Power Consumption	17W
	Weight (without CCU)	21.35kg (47.1lb)
	Temperature Range	-20°C ~ +50°C
	Environmental Protection (Camera)	IP68
	Environmental Protection (Coiler)	IP54

Above: **A** – Compatible Coiler with Pan & Rotate Camera CCP60/CAM026 **B** – Compatible Coiler with Axial Camera CCP60R/CAM025



MANUAL CABLE REELS

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 waterproof 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 Storage Trolley (PTP01) shown opposite and on page 25, and the large reel is ideal for being installed as part of our SurveyPro CCTV Van Fit-out. (visit www.minicam.co.uk/custom-van-fits).



Ex Cable available in ATEX ZONE 2 Approved

SPECIFICATIONS

RMP	Product Code:	RMP100	RMP200	RMP300
	Dimensions (L x W x H)	530 x 220 x 520mm	530 x 280 x 520mm	530 x 400 x 520mm
Weight	18kg (40lb)	27kg (60lb)	37kg (82lb)	
Cable Length	100metres	200metres	300metres	
Environmental Protection	Splash Proof	Splash Proof	Splash Proof	

Left: **A – Control Unit** CCU210 **B – Portable Storage Trolley** PTP01
C – Manual Cable Reel 200metre RMP200 **D – Manhole Top Roller** TRP01

MOTORISED CABLE REEL

EASY ONE-PERSON OPERATION IN REMOTE LOCATIONS

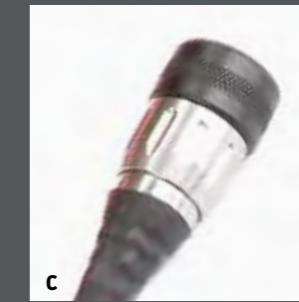
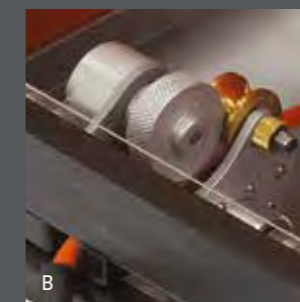
Built to the same exacting standards as our manual cable reels, these labour saving motorised reels are sturdy, rugged and built to reliably perform efficient pipeline inspections.

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



The reels are available in 2 sizes – Large 300m and Small 200m. The 200m reel has secure fixing points for fitting to our Portable Storage Trolley (PTP01) see page 25. Both reels are ideal for being installed as part of our Custom Van Fit.



Ex Cable available in ATEX ZONE 2 Approved

SPECIFICATIONS

RAP	Product Code:	RAP200	RAP300
	Dimensions (L x W x H)	530 x 320 x 520mm	530 x 440 x 520mm
Weight	32.5kg (60lb)	42.5kg (40lb)	
Cable Length	200metres	300metres	
Power Supply	24v	24v	
IP Rating	IP54	IP54	

A Emergency Stop Button and Status Indicator
B Cable Self Layering Mechanism
C Waterproof Connector



PRO-PIP-REP
Reporting Software



CCU208
Digital Control Unit



WIN-CAN-REP
Embedded Software



Manual Cable Reel
RMP300 / RMP200
RMP100



Motorised Cable Reel
RAP300 / RAP200




CRP90
90 mm Crawler



CRP150
150mm Crawler



CRP300
300mm Crawler



FRP01
Floatation Raft



QRW90
90mm Wheels



QRW115
115mm Wheels



QRW140
140mm Wheels



QRW140XL
140mm Wheels



QRW90/115/140CB
Carbide Wheels



QRW90/115/140HG
High-Grip Wheels



QRW250
250mm Wheels



QRW250XL
250mm Wheels




ALB300
Auxilliary Light / Backeye



CAM025
Axial Camera



CAM026
Pan & Rotate Camera



CAM027
Axial Camera



CAM028
Pan & Rotate Zoom



CCP60R
Ready Coiler



CCP60D
Duo Coiler



BPP-24
Proteus Battery Back



CGP01
Cable Guide Pulley



TRP01
Manhole Top Roller




LCP05
Link Cable



Extension Reel
30m ERP30
50m ERP50



VBP05
Proteus Van Box



PTP01
Portable Storage Trolley

Mini-Cam's unique patented Quick Change Wheel Lock



CRAWLER WHEELS

OUR SPECIALLY DESIGNED WHEELS OFFER PERFORMANCE BENEFITS FOR VARIOUS PIPE DIAMETERS AND SPECIFIC CONDITIONS

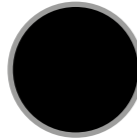
Proteus crawlers feature Mini-Cam's unique patented wheel lock device. This makes it easy to adapt the crawler wheel type to suit the size and condition of the pipe. Using the supplied 4mm T Bar the operation is quick and simple with no other tools required.

View the Changing Wheels "HOW-TO" video at MinicamTubeUK

NEW SOFT BLACK RUBBER

Rich black, soft rubber tyres developed to provide improved traction in regular pipes. Available in three sizes and Wide Axle

IMPROVED TRACTION



PNEUMATIC BALLOON

Heavy duty, 250mm wide tyres designed to improve performance on our large Proteus CRP300 crawler. Available in one size and Wide Axle

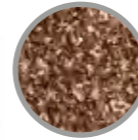
RUGGED HEAVY DUTY



CARBIDE

Fragmented copper particles fused to an heavy duty stainless steel body. Available in three sizes and Wide Axle

FOR PLASTIC PIPES



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



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.

Available in Soft Black Rubber, Carbide and High Grip

Wheel Type	To fit CRP90	To fit CRP150	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	To fit CRP90	To fit CRP150	To fit CRP300	Recommended Pipe Diameter
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	To fit CRP90	To fit CRP150	To fit CRP300	Recommended Pipe Diameter
90mm High Grip Wheel	QRW90HG/90	QRW90HG/150	-	150mm to 200mm
90mm Extra Large High Grip Wheel	QRW90HGXL/90	-	-	200mm x 300mm
115mm High Grip Wheel	-	QRW115HG/150	-	200mm to 300mm
140mm High Grip Wheel	-	QRW140HG/150	-	300mm to 450mm

Pneumatic Balloon Wheels	To fit CRP90	To fit CRP150	To fit CRP300	Recommended Pipe Diameter
250mm Wheel	-	-	QRW250	600mm to 1000mm
250mm Extra Large Wheel	-	-	QRW250XL	600mm to 1000mm

Proteus CRP150EX
CAM026EX
QRW90SR/150
QRW140HG/150



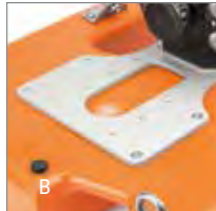
FLOATATION RAFT

PIPE INSPECTION IN FLOWING WATER JUST GOT EASIER!

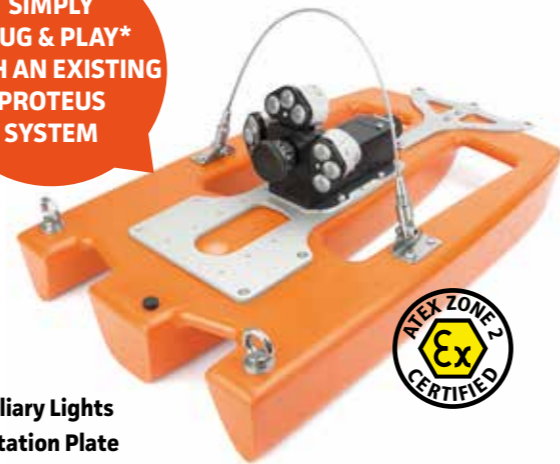
Eliminate the need for man-entry. The floatation raft features three extremely powerful angled auxiliary LED ultra-bright light modules to provide enough light to illuminate pipes in excess of 2000mm. Small enough to be lowered down most common sizes of manhole cover, the compact design allows inspection capabilities in pipes from 600mm.

Designed and manufactured in-house to exacting standards, the tough polyethylene construction of the raft body is impact resistant and designed to withstand challenging inspections. An in-built lowering loop makes for quick and easy deployment and retrieval, and the factory tested floatation plate ensures the device is perfectly balanced to eliminate rolling.

**SIMPLY
PLUG & PLAY*
WITH AN EXISTING
PROTEUS
SYSTEM**



- A Auxiliary Lights
- B Floatation Plate
- C Strain Relief



SPECIFICATIONS

FRP01	Product Code:	FRP01
	Dimensions (L x W x H)	680 x 420 x 200mm
	Weight (without camera)	5.8kg (12.7lb)
	IP Rating	IP68

*Additional software may be required

PROTEUS POWER

PORTABLE POWER... WHERE WILL IT TAKE YOU?

No need to rely on vehicle or mains power. Mini-Cam's unique Proteus Power Pack enables pipeline inspections in the most remote locations with 5 hours inspection time.

The rugged pack is quick and easy to connect. Output short circuit protected, the device features LED Charge status indication, LED battery fault indication, Proteus battery state indication and Proteus auto power down on low battery.

ProteusPower



SPECIFICATIONS

BPP01	Product ID:	BPP24
	Dimensions (L x W x H)	280 x 100 x 120mm (11 x 3.9 x 4.7in)
	Weight	4kg (8.80lb)

Dangerous goods shipping conformity required - please contact us for details

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, and with the added convenience of Mini-Cam's unique Proteus Power Pack, 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 trolley incorporates Control Unit CCU208, Manual Cable Reel RMP200 or RMP100, Battery Pack BPP01 and Accessory Case making the whole Proteus system highly portable and suitable for one-man operation.

Available with a choice of cable reel sizes: 200metre (RMP200) or 100metre (RMP100)



SPECIFICATIONS

PTP01	Product ID:	PTP01
	Dimensions (W x H x D)	65 x 115 x 74.5cm (25.5 x 45.2 x 29.7in)
	Weight (unladen)	09.75kg (21.5lb)

Equipment shown on trolley not included with PTP01

ACCESSORIES

PRO LASER

ACCURATE ANALYSIS OF THE TRUE PIPE CONDITION PRIOR TO AND AFTER REHABILITATION

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.

A laser scan of a pipe is a valuable addition to any CCTV inspection. It assists tremendously in classification of the pipe observations. *WinCan* Laserscan software generates the report fully automatically, including diameter, ovality, capacity and also provide XYZ-Data.



PRODUCT DETAILS

Description	Product Code
ProLaser Profiler	LAS-PRO

LATERAL PIN KIT

A useful addition to the Proteus pipeline inspection system. Used exclusively with the Pan & Rotate camera (CAM026), simply attach the pin to allow the inspection of



incoming lateral pipe. The pin adjusts the direction and guides the camera smoothly along the pipe. The kit comes with three sizes of pin small 150mm (6in), medium 225mm (9in) large 300mm (12in), fixings and full instructions.

PRODUCT DETAILS

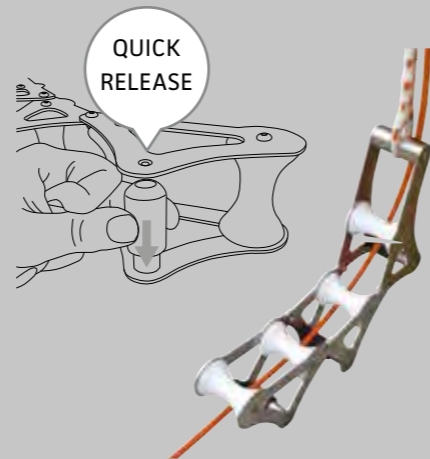
Description	Product Code
Lateral Pin Kit	ASS-001-968

CABLE GUIDE PULLEY

FOR SMOOTH GUIDING OF INSPECTION CABLE



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



PRODUCT DETAILS

Description	Product Code
Cable Guide Pulley	CGP01

MANHOLE TOP ROLLER

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



PRODUCT DETAILS

Description	Product Code
Cable Guide Pulley	TRP01

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 hand carry case. Replacement cylinders can be purchased separately.



PRODUCT DETAILS

Description	Product Code
Standard CO ₂ Kit	PKP01
ATEX Nitrogen Kit	PKP02EX

CAMERA ELEVATION PLATFORM

This telescopic elevator quickly attaches to the Proteus CRP300 Crawler and can be manually moved up or down to increase inspection capabilities up to 2000mm. Interface for cameras and auxiliary lights.



PRODUCT DETAILS

Description	Product Code
Elevation Platform	CEP300

BRICK EGG STABILISER



A simple quick fit to our Proteus CRP300 crawler, the BEP300 stops the crawler from rolling over during inspections in pipes with an egg shaped profile.



PRODUCT DETAILS

Description	Product Code
Brick Egg Stabiliser	BEP300

SPECIFICATIONS - PROTEUS CRAWLER SYSTEMS

		CRP90	CRP150	CRP300	
CRAWLER	Pipe Diameter	90 - 300 3.5- 12	150 - 600 6 - 24	300 - 1000 12 - 40	
	Weight	4.5 kg (9.9lb)	9.25 kg (20.3lb)	32 kg (66lb)	
	Pressure Depth Rating	1 bar (14.50psi)	1 bar (14.50psi)	1 bar (14.50psi)	
	Built-in Elevator	Motorised	Manual	Motorised	
	Quick Change Wheel Lock	YES	YES	YES	
	Optional Large Wheels	2 size options	4 size options	3 size options	
	Multi-Frequency Sonde Transmitter	YES	YES	YES	
	Inclination Sensor	YES	YES	YES	
	Heavy Duty Connector	YES	YES	YES	
	Flexible Rear Connector	YES	OPTIONAL	OPTIONAL	
Dimensions	L x W x H mm L x W x H inches	260 x 80 x 80 10.2 x 3.1 x 3.1	320 x 120 x 100 12.5 x 5 x 4	500 x 220 x 170 19 ¹³ / ₁₆ x 8 ⁷ / ₂ x 6 ¹³ / ₁₆	
ATEX Zone 2 Certified		OPTIONAL	OPTIONAL	OPTIONAL	
CONTROL UNIT	Operating System	Linux	YES	YES	YES
	Screen	XGA (1024 x 768 pixels) Daylight Viewable	YES	YES	YES
	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	



CAMERAS FOR PROTEUS SYSTEMS



Self Levelling Axial



Pan & Rotate

		CRP90	CRP150	CRP300
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			

		CRP90	CRP150	CRP300
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 73 x 73mm (4.7 x 2.8in x 2.8in)		
	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

		Standard	PAL
CAM027	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)	

		Standard	PAL
CAM028	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)		

		Standard	PAL
ALN300	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

		Standard	PAL
ALB300	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 above are available in ATEX ZONE 2 approved