SPP-ATA

All Terrain Wheels

The All Terrain Wheel attachment provides better stability for the user when rolling 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 required.
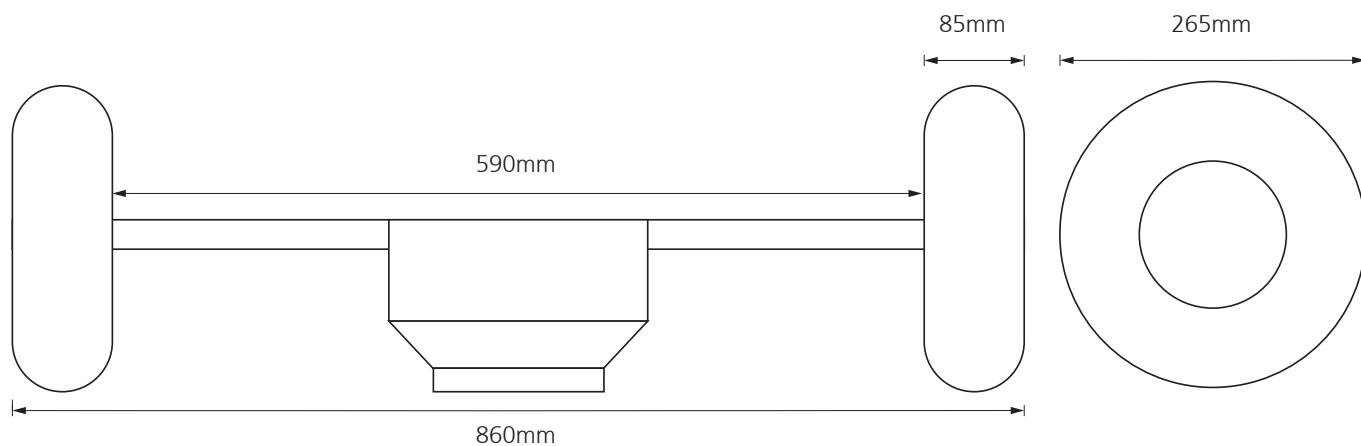
Compatibility

Technical Data

Width	860mm
Depth	265mm
Height	265mm
Weight	1.5kg

All Terrain Wheels

85mm   265mm

590mm

860mm

Pneumatic Wheels

Unattached

Attachment Plate

ACR350/500

minicam

Automatic Cable Reel

Experience powered winding in both directions! Developed for the CCTV Inspection Van market, the ACR500 large capacity reel gives you an impressive 500 metres of inspection capability.

Fitted with 500 metres of high strength, Kevlar reinforced inspection cable, ultra-smooth operation is provided by the powerful, three phase motor and cable layering mechanism, specially designed for uninterrupted, tangle free pay-out and re-winding. A clear safety screen prevents contact with the cable whilst coiling, and for additional safety there's a rigid lid and an emergency motor stop button.

Compatibility

Operation is controlled using the hand-held Bluetooth® joystick remote controller (included) which is also capable of controlling camera and crawler functions, or use the ACR500 control panel buttons in conjunction with the dedicated keys and intuitive on-screen display on the Proteus CCU.

Technical Data

ACR350

Cable Length	350m
Cable Diameter	6.5mm
Dimensions (LxWxH)	660 x 390 x 652mm
Power Supply	90 - 264 VAC
Power Consumption	600W
Environment Protection	IP45
Weight	42kg (99lb)
Remote Controller (inc)	RJB Joystick
Van Guide Pully	VGP350 (Optional)

ACR500

Cable Length	500m
Cable Diameter	6.5mm
Dimensions (LxWxH)	660 x 500 x 652mm
Power Supply	90 - 264 VAC
Power Consumption	600W
Environment Protection	IP45
Weight	55kg (121lb)
Remote Controller (inc)	RJP Joystick
Van Guide Pully	VGP500 (included)

Automatic Cable Reel

652mm

ACR350- 390mm
ACR500- 500mm

660mm
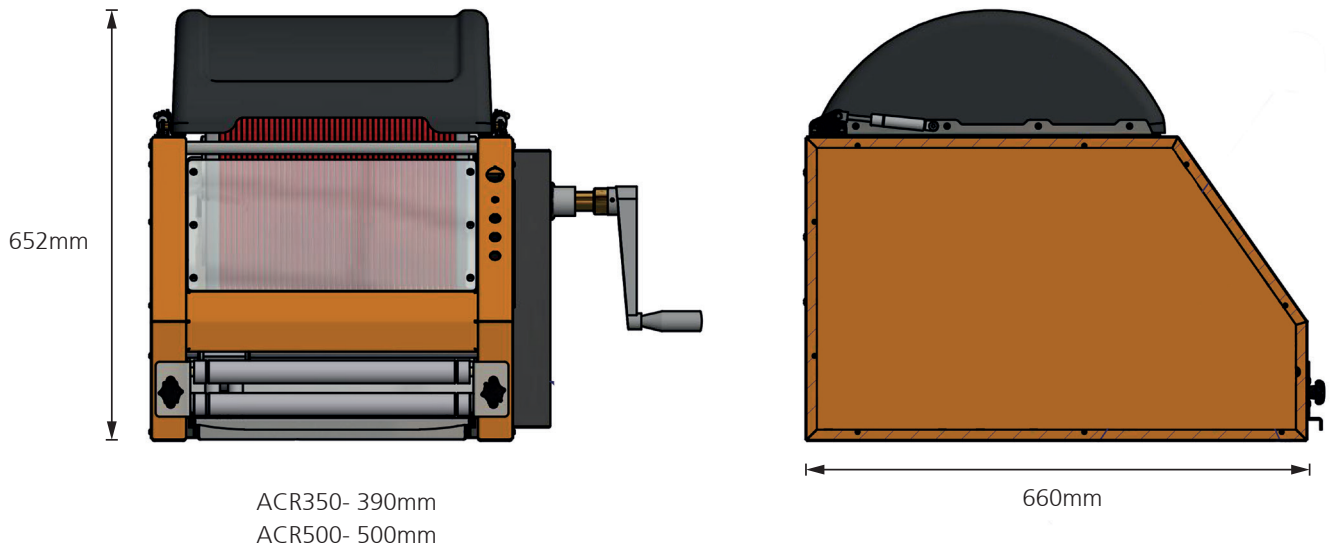
Joystick Remote

The Joystick remote control is used to control a crawler and motorised cable reel using Bluetooth® wireless technology. The motorised cable Rreel can be controlled directly without the presence of the control nnit. A handy size and lightweight, the remote control is simple to use and is rechargeable via USB. Supplied with full instructions.

Motor Stop Button

Additional safety of an instant stop button on the front right hand side of the machine.
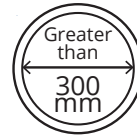
Van Guide Pulley

Reduces friction and provides additional guidance for the cable when paying out and rewinding.

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ALB300/ALN300

Auxiliary Light

Stainless steel housing features three high powered ultra-bright LED lights and a scratch resistant sapphire glass to protect the lens.

Compatibility

Greater than 300 mm

Technical Data

ALN300

Pressure Depth Rating	1 bar (14.50psi)
Dimensions	51 x 68 x 50mm
Weight	225g
Backeye Camera	NO
Compatability	Proteus / Proteus Lite

ALB300

Pressure Depth Rating	1 bar (14.50psi)
Dimensions	84 x 68 x 50mm
Weight	306g
Backeye Camera	YES
Compatability	Proteus / Proteus Lite

Auxiliary Light

50mm

84mm

68mm

50mm

51mm

68mm
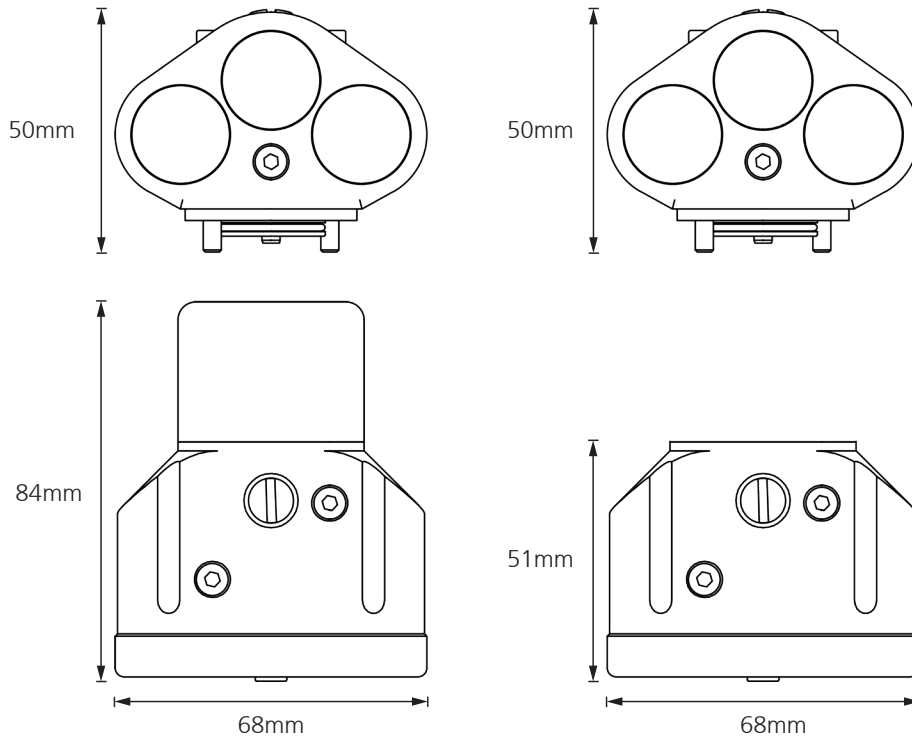
ALN300

Stainless steel housing features 4 high powered ultra-bright LED lights and a scratch resistant sapphire glass to protect the lens.

ALSO available in ATEX ZONE 1

Stainless steel housing features 4 high powered ultra-bright LED lights and a scratch resistant sapphire glass to protect the lens.

ALB300 - Rear View

Optional back-eye Camera to capture images from behind the crawler, invaluable for reverse steering.

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APB300/APN300

LED Pods

Ultra-bright LED auxiliary light head adds extra illumination for inspections in larger pipe diameters. The twin light pods have manually adjustable arms to give full horizontal 180° rotation and 90° upward rotation. The colour rear view backeye camera aids crawler reversing.


Compatibility

Greater than 300 mm

Technical Data

APB300

Pipe Diameter	300mm upwards
Illumination System	9 High Power LEDs
Backeye Camera	YES
Pressure Depth Rating	1 bar (14.50psi)
Dimensions	85 x 150 x 55mm
Weight	480g

APN300

Pipe Diameter	300mm upwards
Illumination System	9 High Power LEDs
Backeye Camera	NO
Pressure Depth Rating	1 bar (14.50psi)
Dimensions	52 x 150 x 55mm
Weight	400g

LED Pods

55mm

150mm

85mm

52mm
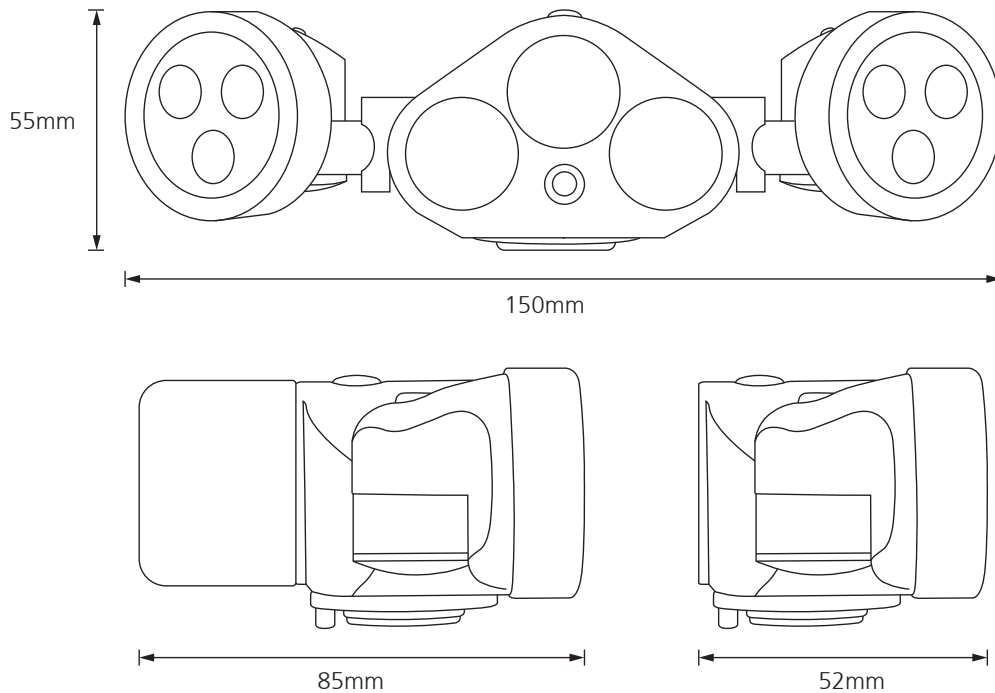
Also available in ATEX ZONE 1

ATEX LED Pods are engineered, built and tested for safe use in some of the most dangerour situations without compromising any features of regular LED Pods.

Rear View

Optional back-eye camera to capture images from behind the crawler.

LED Lights

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BEP140/150/300

 minicam

Brick Egg Stabalizer

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 Minicam's Proteus CRP300, CPL150 and CRP140 crawlers

Compatibility

Technical Data

	BEP140/150	BEP300
Compatibility	CRP140	CRP300
Length	375mm	450mm
Width	180mm	190mm
Height	210mm	220mm
Weight	2.05kg	2.95kg

Brick Egg Stabalizer
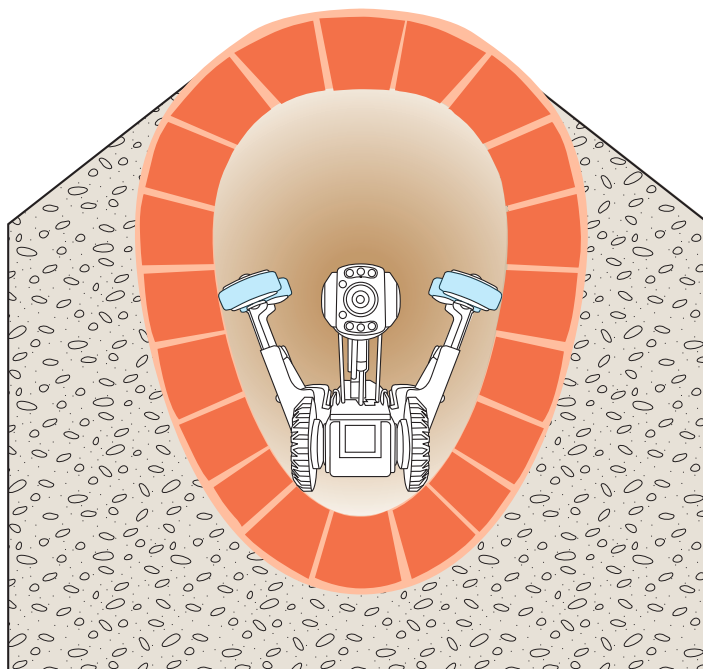
Rollers
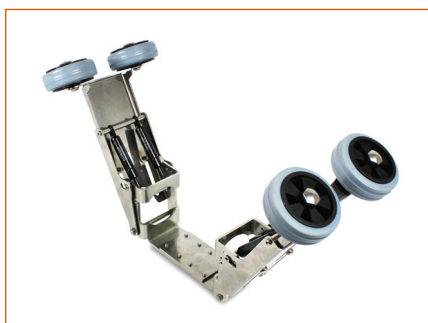
Unattached

Attached to Crawler

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CGP200/300

Cable Reel Guide

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 Minicam motorised cable reels and manual cable reels to fit 300 metre and 200 metre reels.
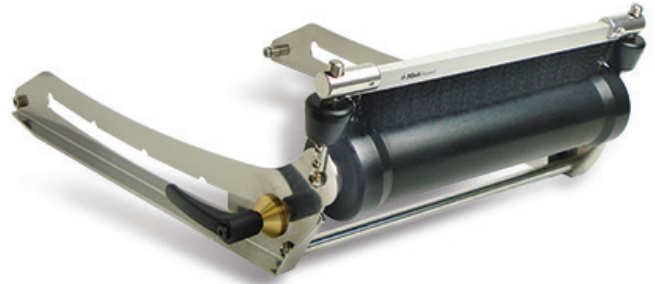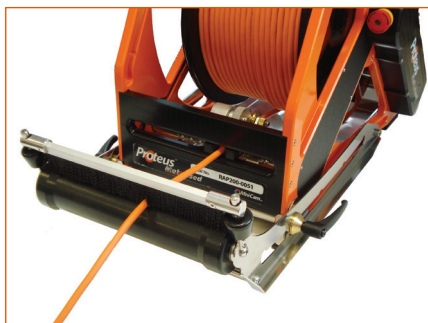
Compatibility

Technical Data

	CGP200	CGB300
Compatibility	RAP200/RMP200	RAP300/RMP300
Length	540mm	540mm
Width	370mm	490mm
Height	175mm	175mm
Weight	2.9kg	3.5kg

Cable Reel Guide

540mm

CGP200- 370mm
CBG300- 490mm

175mm

Unattached

Attached

Close-up

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CAM025

minicam
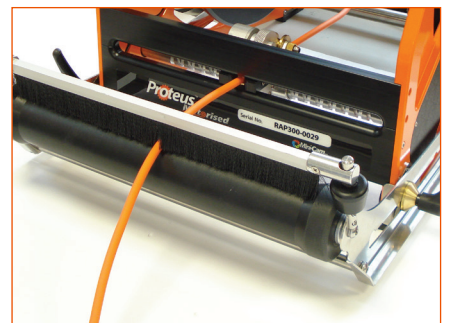
Self Levelling Axial Camera

Stainless steel housing features four high powered ultra-bright LED lights and a scratch resistant sapphire glass to protect the lens.
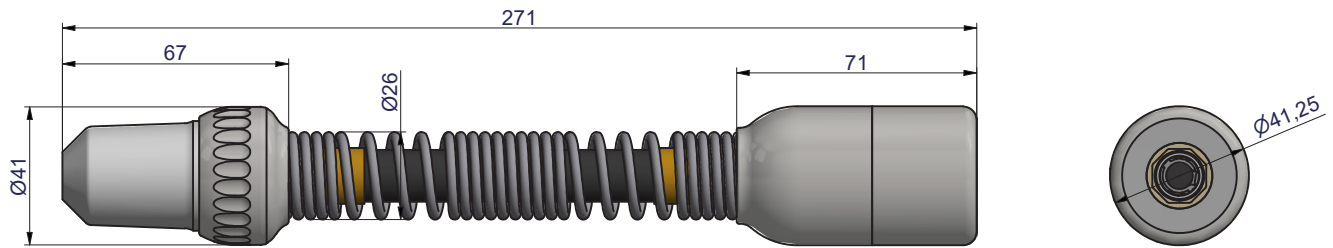

Compatibility

Technical Data

Effective Pixels	512 x 582
Camera Sensor	470 HTVL
Sensitivity	<1.0 Lux
Aperture / Field of View	F2.5/75°
Illumination Intensity	12.5k Lux at 150mm
Pressure Depth Rating	1 bar (14.50psi)
Dimensions	271 x 41 x 41mm
Weight	620g

Self Levelling Axial Camera

271

67

Ø26

71

Ø41

Ø41,25

Front View

Rear View

Camera Head

CAM026

Pan & Rotate Camera

Continuous 360° rotation and +/-135° pan. Dual clusters of 3 high powered ultra-bright LED lights.

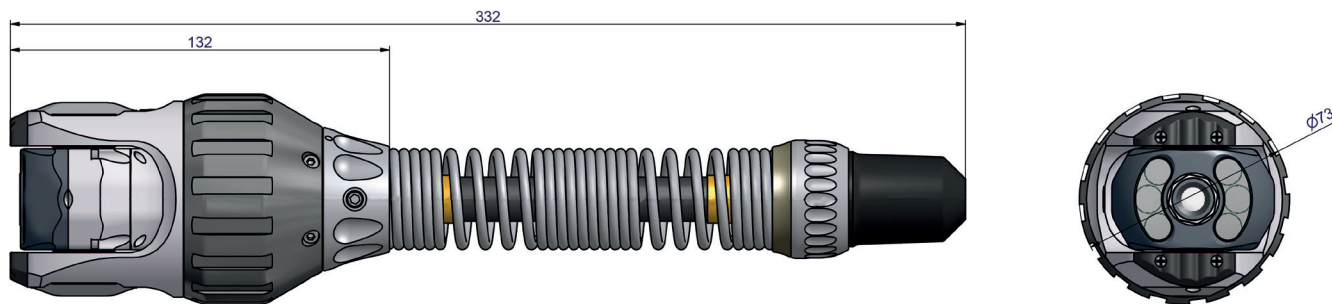## Compatibility

Technical Data

Effective Pixels	512 x 582
Camera Sensor	470 HTVL
Sensitivity	<1.0 Lux
Aperture/Field of View	F2.5/75°
Illumination Intensity	12.5k Lux at 150mm
Pressure Depth Rating	1 bar (14.50psi)
Dimensions	120 x 73 x 73mm
Weight	861g

Pan & Rotate Camera

Front View

Rear View

Camera Head

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CAM027

Axial Camera

Robust camera head with triple clusters of three high powered ultra-bright LED lights for optimum illumination and a scratch resistant sapphire glass to protect the lens.
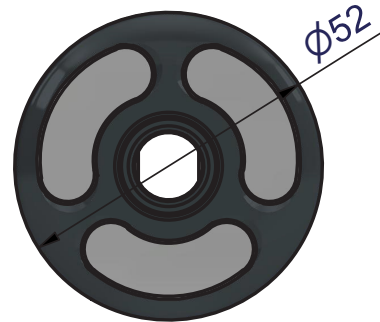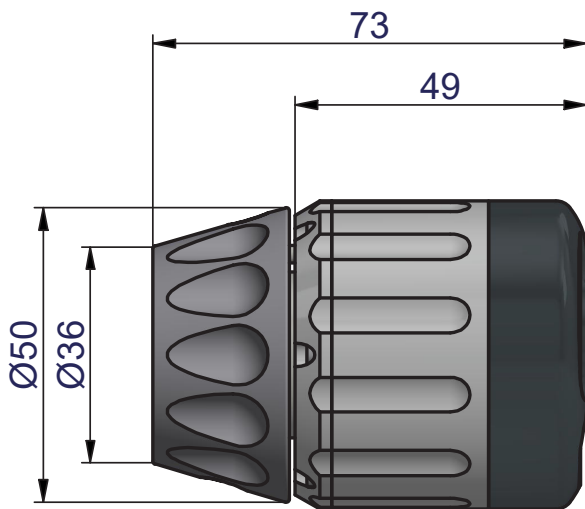

Compatibility

Technical Data

Effective Pixels	512 x 582
Camera Sensor	470 HTVL
Sensitivity	<1.0 Lux
Aperture/Field of View	F2.5/75°
Illumination Intensity	12.5k Lux at 150mm
Pressure Depth Rating	1 bar (14.50psi)
Dimensions	73 x 52 x 52mm
Weight	251g

Axial Camera

73

49

Ø50
Ø36

Ø52

Front View

Side View

Rear View

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CEP300

Camera Elevation Platform

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.

Compatibility

Up To
2200 mm

Technical Data

Connections	Camera connections (front) Lifter connection (rear) 2x additional lamp connections (side) 1x additional lamp connection with Backeye Camera (top connector)
Top camera position (pipe centre) using with pneumatic balloon wheels	1090mm
Mid camera position (pipe centre) with extended wheels	Approx 830mm
Low camera position (pipe centre) with pnuematic wheels	565mm
Dimensions	142 x 130 x 476mm
Weight	5.7kg

Camera Elevation Platform

476mm

130mm

142mm
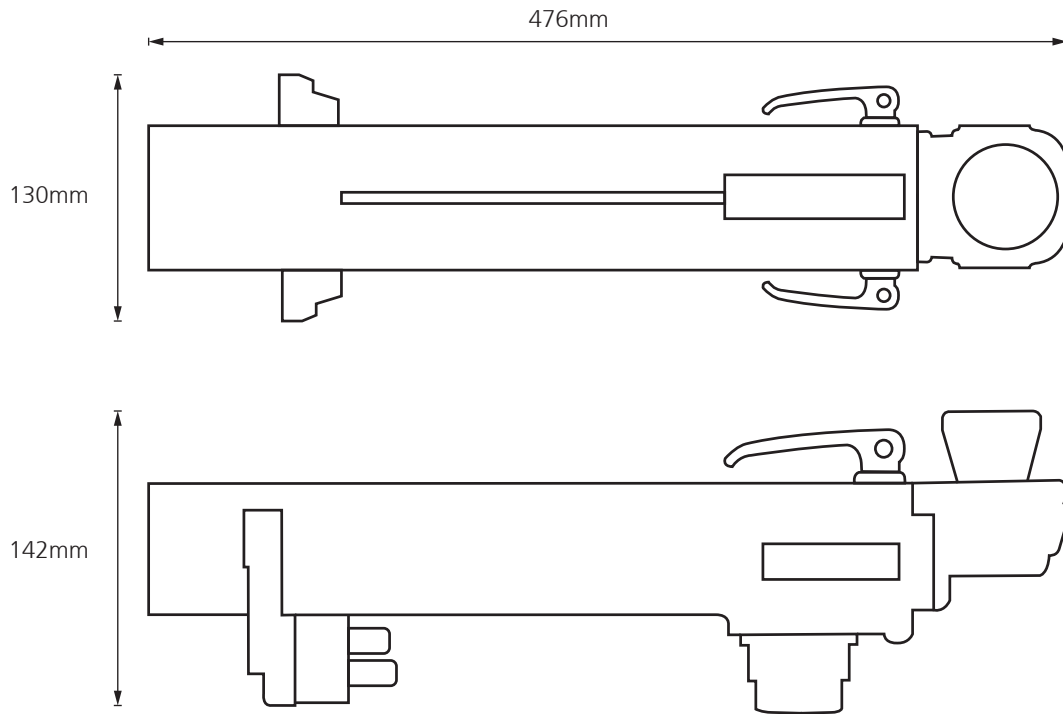
Unattached

Fixing

Extended

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CCE01
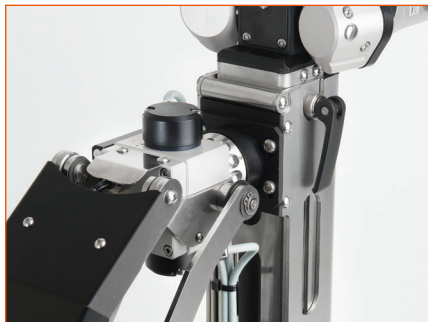
Crawler Camera Extender

Minicam's Proteus crawler camera extender moves the camera position 100mm forward.Your 90° downward views now show the invert of the pipe and not the crawler.

Built to Minicam's exacting standards, the camera extender is quick and easy to attach with a simple push, rotate and lock.
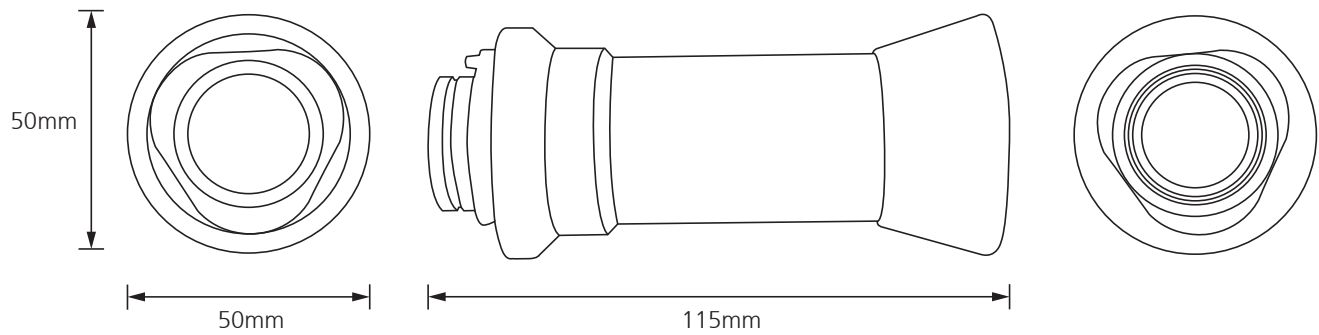
Compatibility

Technical Data

Dimesions (L x W x H)	115 x 50 x 50mm
Weight	302g
Temperature Range	-20°C ~ +50°C
Environmental Protection	Water Resistant

Crawler Camera Extender

50mm

50mm

115mm

Rear Attachment

Front Attachment

Extended View

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FRP01
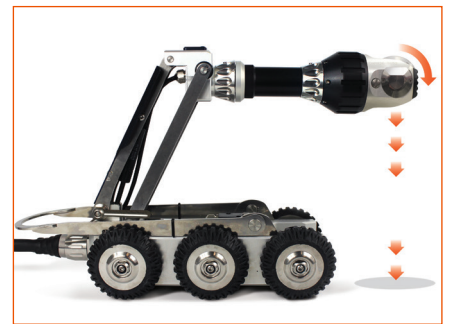
Floatation Raft

Designed for today's stringent health and safety policies. Small enough to be be lowered down most common sizes of manhole cover, eliminating the need for man-entry.

Three extremely powerful angled auxiliary LED light modules provide enough light to illuminate pipes in excess of 1000mm, while the compact design allows inspection capability 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 retrievial, and the factory tested floatation plate ensures the device is perfectly balanced to eliminate rolling.

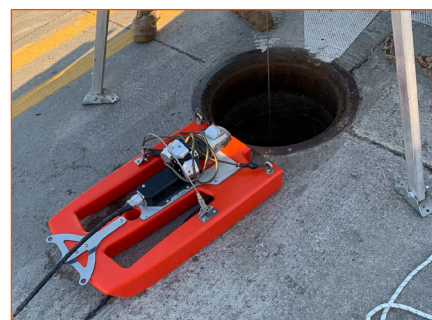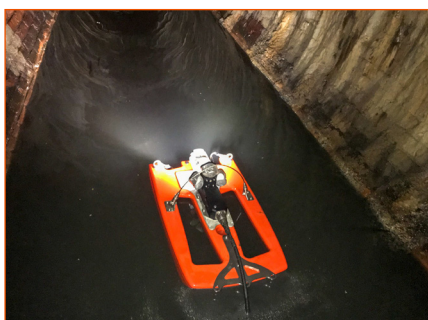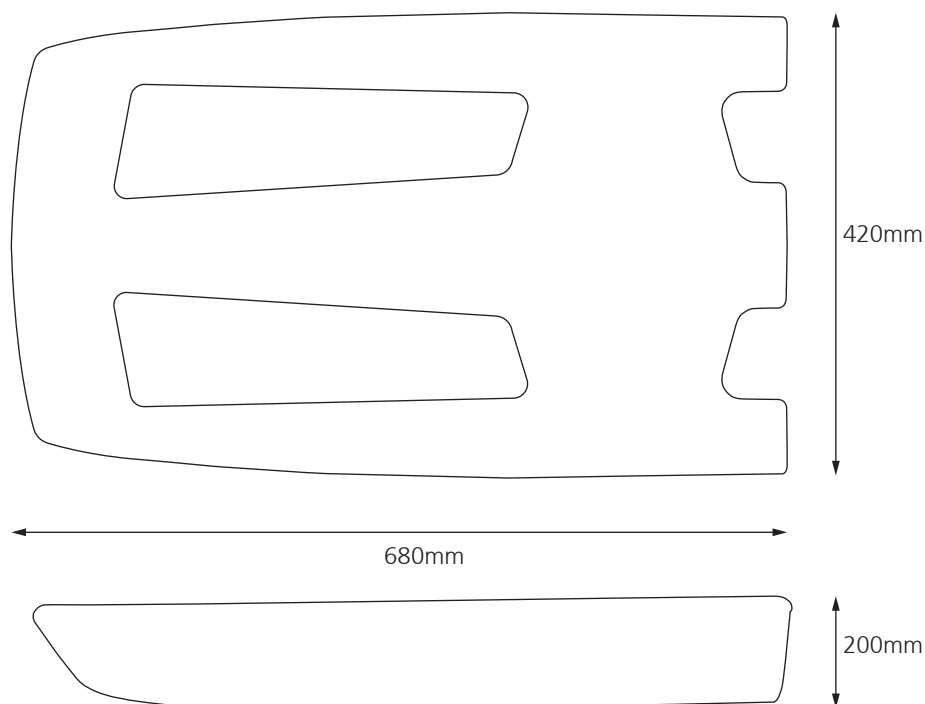Simply plug and play* with an existing Proteus System

Compatibility

Greater than 600 mm
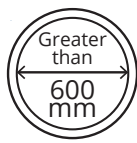
Technical Data

Dimensions	680 x 420 x 200mm
Weight	5.8kg 12.7LB

*Additional software may be required

Floatation Raft

420mm

680mm

200mm

Auxiliary Lights

Powerful LED auxiliary lights provide visibility during inspection.

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Minicam, Unit 4, Yew Tree Way, Stonecross Park, Golborne, Warrington, WA3 3JD
Tel: + 44 (0) 1942 270524 · Email: info@minicam.co.uk
www.minicamgroup.com

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CAM026L

minicam

Pan, Rotate and Laser Camera

Continuous 360° rotation and +/-135° pan. Integral distance sensor and visible lasers to enable accurate pipe diameter, defect and object measurement.
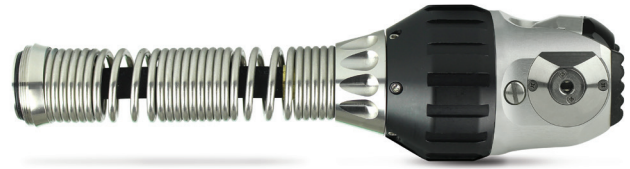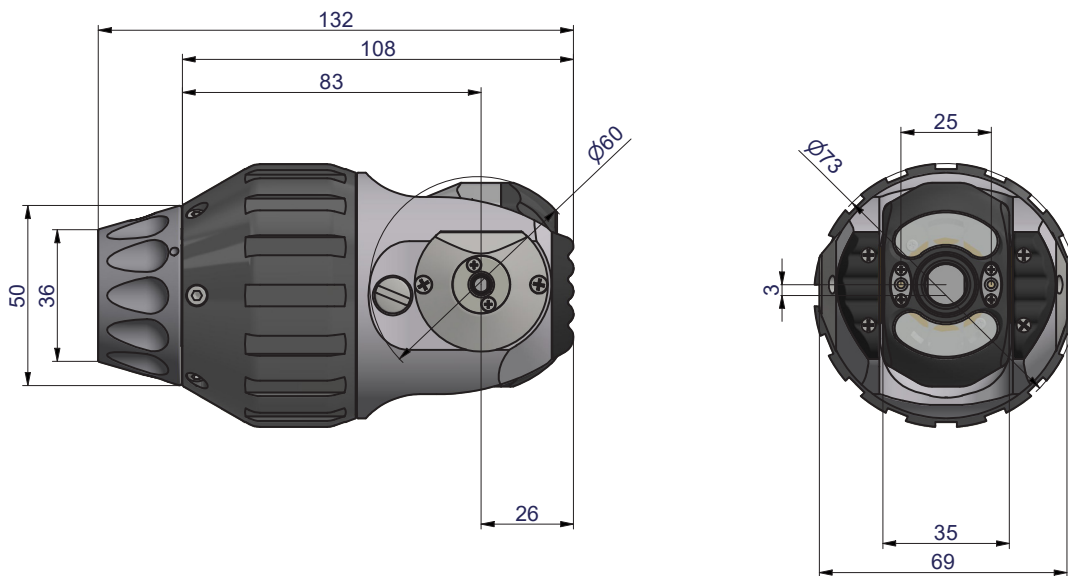
Compatibility

Technical Data

Pipe Diameter Measurement Range	90 - 600mm
Aligned Laser Spacing	25mm
Camera Sensor	470 HTVL
Sensitivity	<1.0 Lux
Apeture/Field of view	F2.5/75°
Maximum Illumination Intensity	12.5k Lux at 150mm
Pressure Depth Rating	1 bar (14.50psi)
Dimensions	132 x 73 x 73mm
Weight	865g

Pan, Rotate and Laser Camera

Front View

Side View

CAM026L on CPL150S Crawler

CAM028L

minicam

Pan, Rotate, Zoom and Laser Camera

Optical and digital zoom function to allow distant objects to be viewed in much greater detail. Continuous 360° rotation and +/-135° pan. Integral distance sensor and twin lasers to enable accurate pipe diameter, defect and object measurement.

Compatibility

Greater than 90 mm

Technical Data

Pipe Diameter Measurement Range	90 - 600mm
Aligned Laser Spacing	30mm
Camera Sensor	800 HTVL
Sensitivity	<1.0 Lux
Apeture/Field of view	F1.8 - F2.9 / 46° - 4.6°
Maximum Illumination Intensity	12.5k Lux at 150mm
Pressure Depth Rating	1 bar (14.50psi)
Dimensions	155 x 84.5 x 84.5mm
Weight	1148g

Pan, Rotate, Zoom and Laser Camera
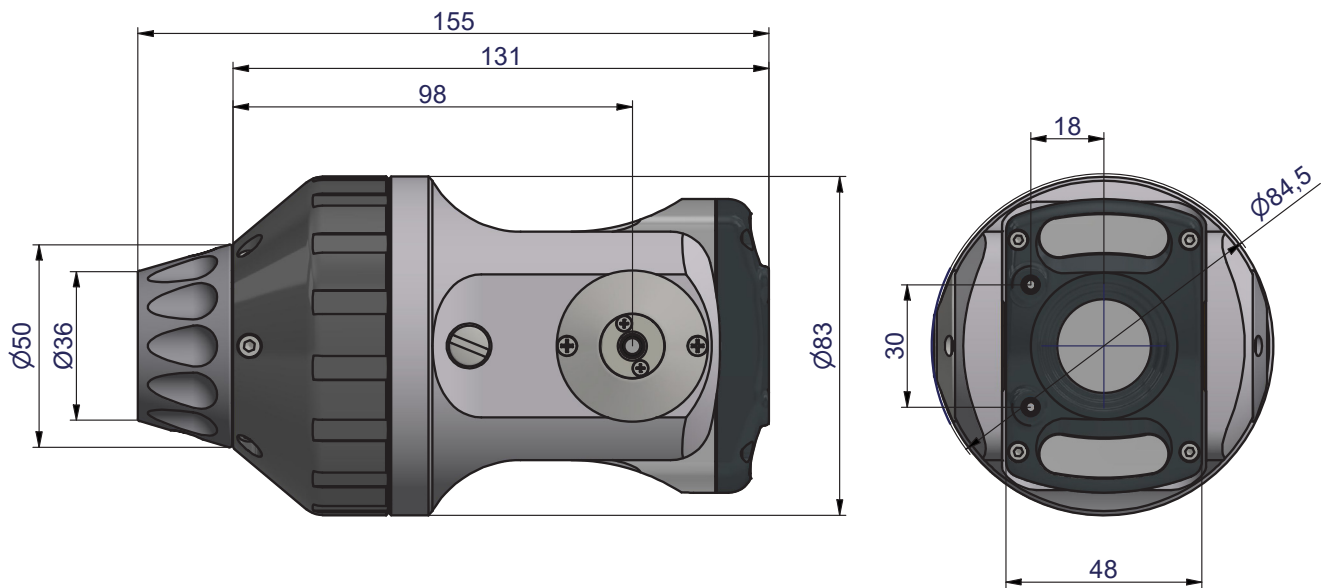
Front View

Rear View

Side View

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CAM050

Pan, Rotate and Laser Camera

With a diameter of 49mm and continuous 360° rotation and +/- 135° pan the CAM050 offers robust versatility, perfect for small diameter pipe applications.

Integral distance sensor and twin lasers enable accurate pipe diameter, defect, and object measurements to ensure no survey is too big for this small camera.
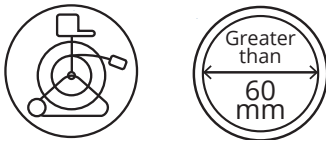
CAM050 is shipped with Minicam's SOLOPro+50 pipeline video inspection system or optionally with our standard SOLOPro+ configuration, available in multiple rod lengths and with a range of options. The CAM050 is also compatible with our LAT150, mainline to lateral inspection system.

Compatibility

Greater than 60mm

Technical Data

Construction	Stainless Steel / Aluminium
Pipe Compatibility	Skids to suit 100mm (4î) and 150mm (6î) Pipes
Pipe Sizing	Greater than 60mm (2.36î)
Aperture / Field of view	F2.5 / 75∞
Laser Spacing	Dual aligned front facing / single side
Imager	CMOS Colour Camera
Effective pixels	976 x 496
Camera Sensor	740 TVL
Zoom	N-A
Focus	Manual variable
Image orientation	Auto-levelling
Illumination system	4 LEDs
Luminous Intensity	Adjustable (to 12.5k Lux at 150mm)
Sensitivity	< 1.0 Lux
Luminous Intensity	480 lmís
Weight	570g
Size	50mm diameter

Pan, Rotate and Laser Camera

143 72

Ø26 Ø46 Ø50
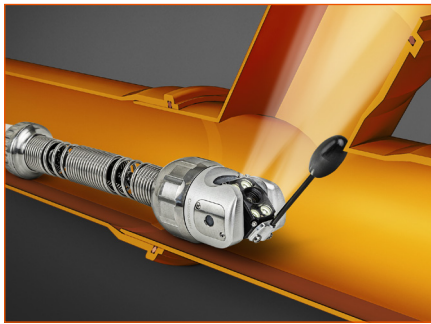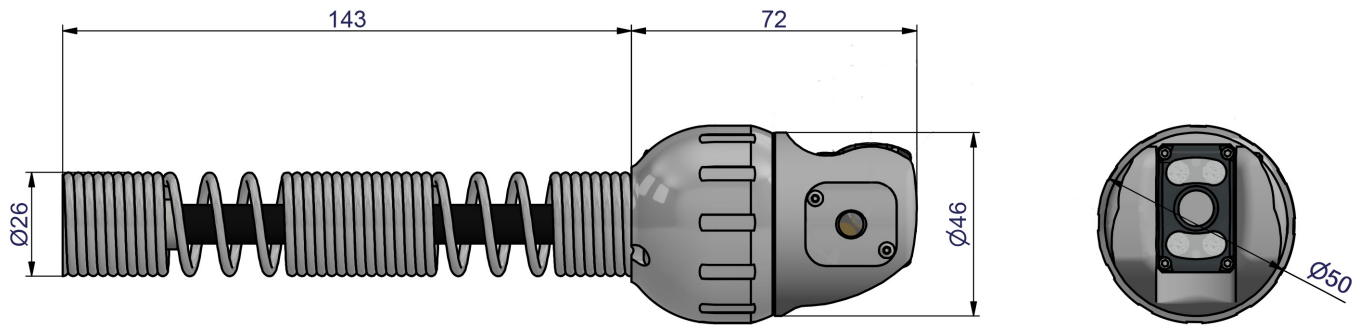
In Use

Coiler

Crawler

MAN-UP-KEY

minicam
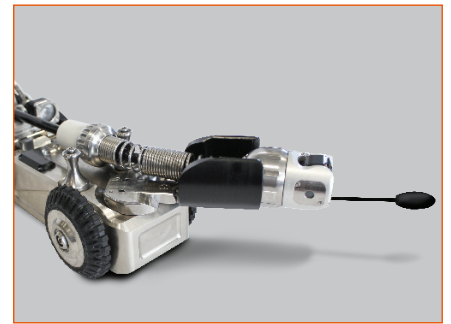
ManUp Key

The revolutionary innovation for raising manholesThe current, traditional techniques of releasing stubborn manhole covers have shown to have health and saftey implications and can be time consuming.

The ManUp Key provides a one-man solution to allow stuck manholes to be released without chiselling or hammering. Its patented slide hammer exerts a momentary upward force capable of releasing stuck, jammed and rusted chamber covers, quickly and efficiently*.

Technical Data

Dimensions (L x W x H)	800 x 295 x 35mm
Weight	6.3kg (13.9lbs)
Optional	Choice of 6 Key Tips

*Please Note:
The ManUp Key is an aid for releasing the majority of stubborn manholes. In certain instances of heavily ceased manholes, the use of additional tools and equipment may be required.

ManUp Key

800mm

280mm
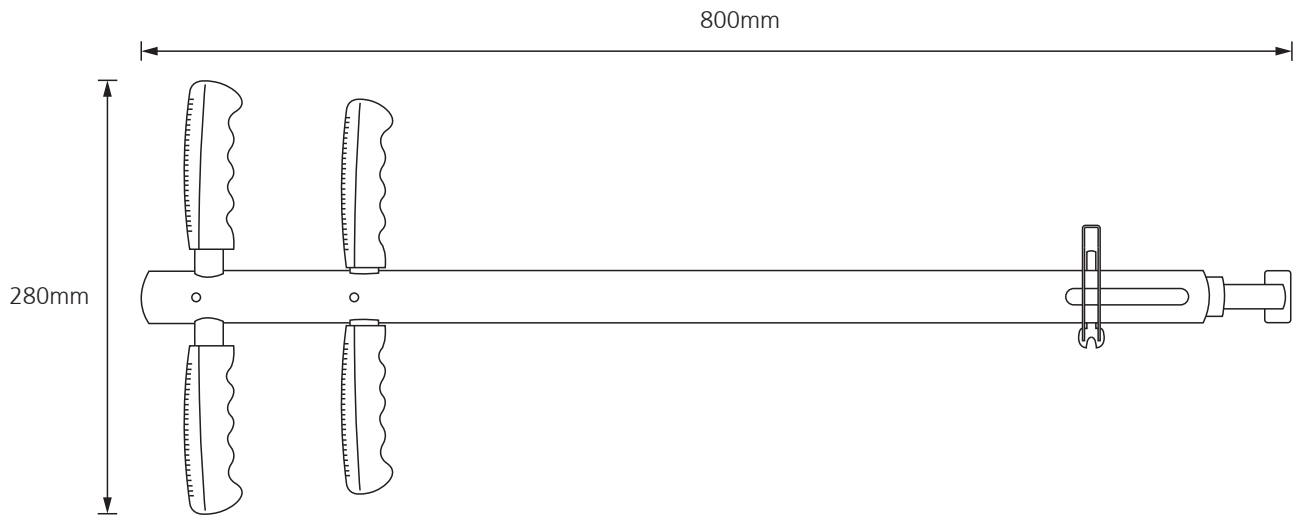
Handle

Accessory Case and Tips

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RMP200/300

minicam

Manual Cable Reel

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

Smooth pay-out and re-winding is performance enhanced by the cable layering mechanisim and durable heavy duty turning handle. Minicam's specialised crawler connector provides a waterproof sresistenat, and there's a removable drip tray for easy cleaning and maintenance.

Compatibility

The reels are available in 3 sizes small 100m, mid-size 250m and large 350m reels. The small and mid-size reels can be fitted to our Portable Storage Trolley (PTP01), and the large reel is ideal for being installed as part of our Custom Van Fit Service.

Technical Data

	RMP200	RMP300
Cable Length	250 metres	350 metres
Dimensions (L x W x H)	530 x 280 x 520mm	530 x 400 x 520mm
Weight	25kg	35kg
Environmental Protection	Splash Proof	Splash Proof

Manual Cable Reel

520mm

530mm

RMP300

RMP200

400mm

280mm

RMP300

RMP200

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Portable Storage Trolley - Proteus Lite

Eliminate health hazardous lifting, and time consuming carrying to your remote work site. Engineered to allow for the mobile operation of your Proteus Lite 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; control unit, reel, battery pack and accessory case. Simply wheel the unit to your location, connect a camera and crawler, and you're up and running in minutes.

The added convenience of Minicam's unique Proteus Power Pack means 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.

Please Note: Equipment shown on trolley NOT included with PTP04
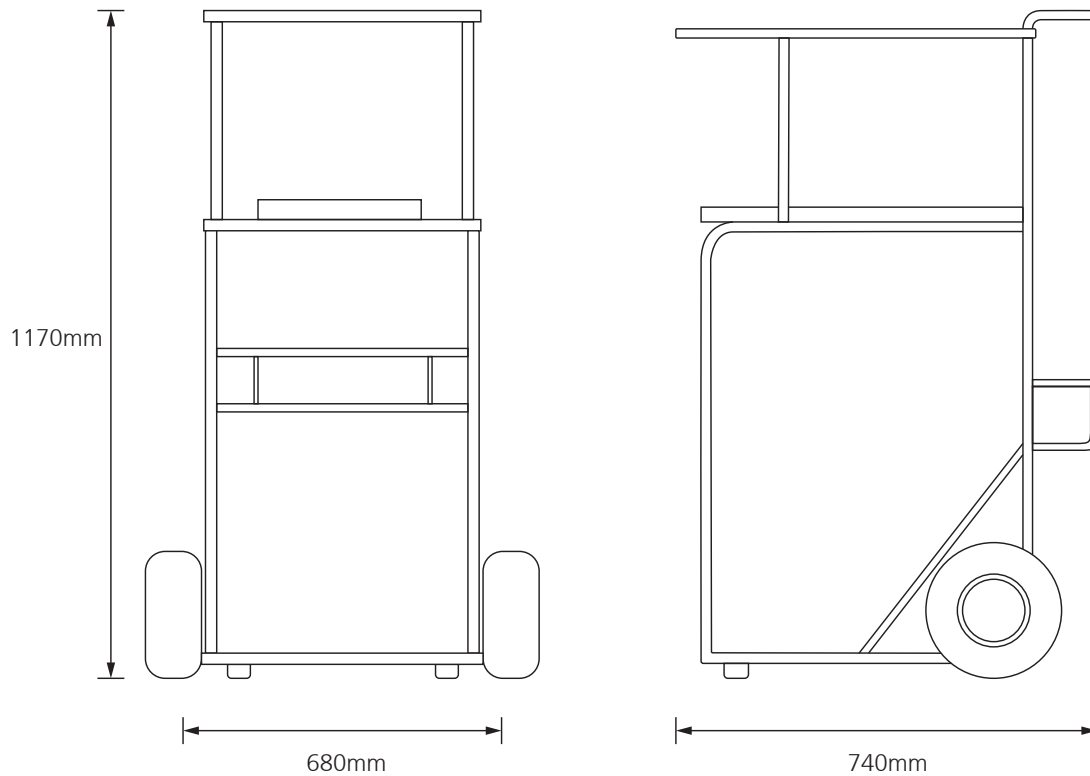**Battery life dependant on operating conditions.*

Compatibility

Technical Data

Construction	Proteus Lite
Dimensions (L x W x H)	740 x 680 x 1170mm
Weight (unladen)	16.4kg

Portable Storage Trolley - Proteus Lite

1170mm

680mm

740mm

Battery Pack Holder

No need to rely on vehicle or mains power. Minicam's unique Proteus Power Pack enables pipeline inspections in the most remost locations with in excess of 5 hours of inspection time.

Tool and Accessory Storage

Robust Wheels for Portability

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minicam

PTP01/02

 minicam

Portable Storage Trolley

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; control unit, reel, battery pack and accessory case. Simply wheel the unit to your location, connect a camera and crawler, and you're up and running in minutes.

The added convenience of Minicam's unique Proteus Power Pack, means 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.

Please Note: Equipment shown on trolley NOT included with PTP01/02
*Battery life dependant on operating conditions..

Compatibility

Technical Data

	PTP01	**PTP02**
Compatibility	RMP100/RMP200	RAP200
Dimensions	650 x 1150 x 750mm	650 x 1150 x 750mm
Weight	9.75kg	9.75kg

Portable Storage Trolley

1150mm

750mm

650mm
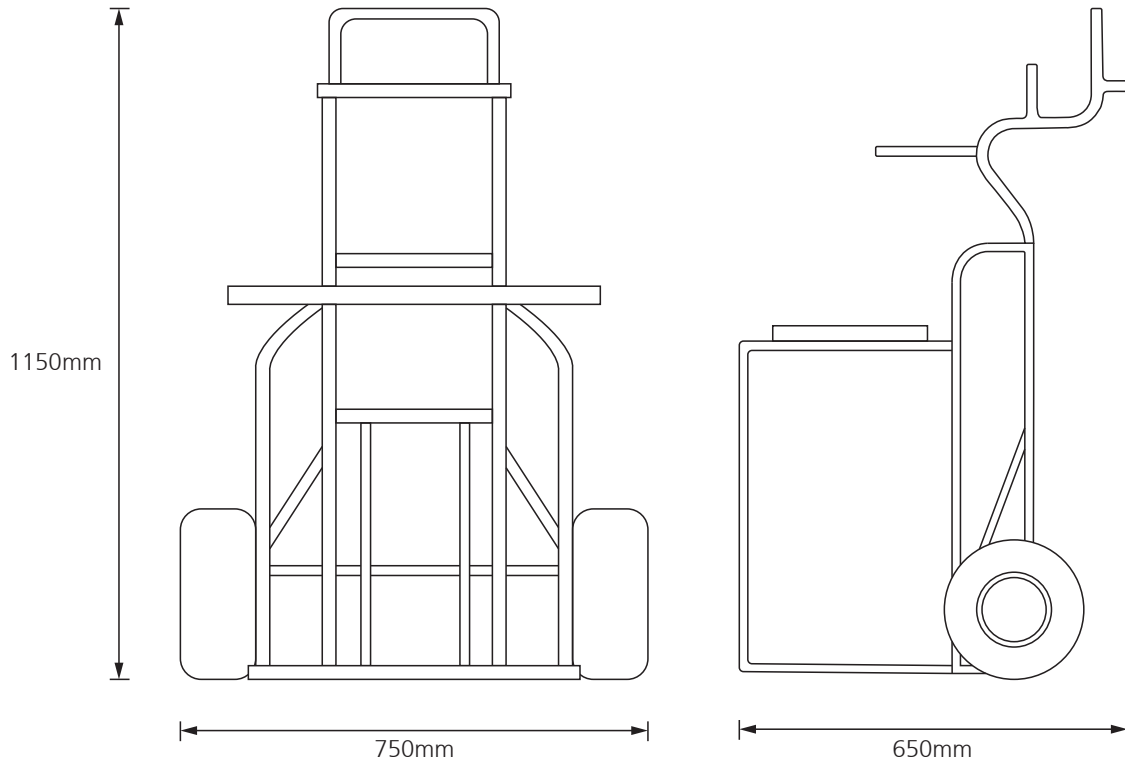
Battery Pack Holdert

No need to rely on vehicle or mains power. Minicam's unique Proteu sPower Pack enables pipleline inspections in the most remost locations with in excess of 5 hours of inspection time.

Fixing Plate

Trolley Without Equipment

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PCA01

Inline Camera Adaptor

Invaluable for hand-held walk-throughs and service department usage .

A useful accessory to have in your inspection kit. The Proteus Inline Camera Adaptor allows the user to connect a camera to the CCU without the need for a crawler. Precision engineered from high specification materials, this hand-held walk-throughs, and for use in a service department.

The PCA01 features dual housings to allow 2 auxiliary lights to be connected.

Aux Light Housing

Compatibility

Technical Data

Compatibility	Proteus System
Dimensions (L x W x H)	130 x 70 x 80mm
Weight	790g
Features	Dual Auxiliary Light Housings

Inline Camera Adaptor

80mm

70mm

130mm

70mm
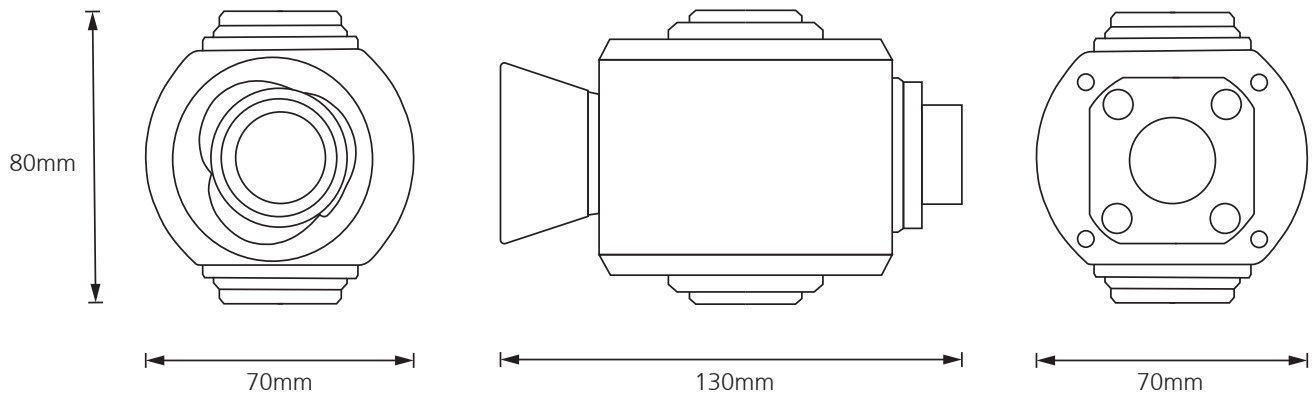
Front View

Top View

Rear View

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minicam
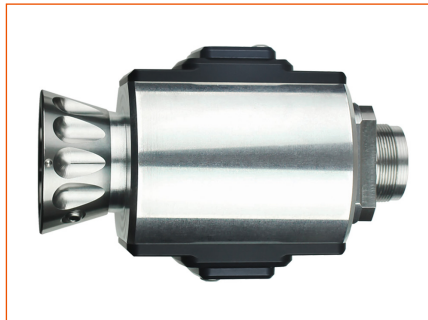
Pressure Kit

ressurisation 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.

Compatibility

Technical Data

	PKP01	PKP02EX
Compatability	Standard CO2	ATEX Nitrogen Pressure Kit

Pressure Kit

Assembled

Full Kit in storage box

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LAS-PRO-CAM026

ProLaser

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 Minicam 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.
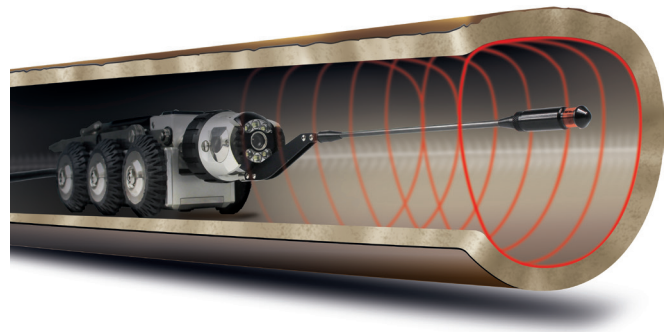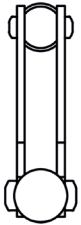
Compatibility

Technical Data

Dimensions (L x W x H)	407 x 40 x 12mm
Weight	0.16kg (0.63lb)

ProLaser

Laser Bracket

140,5

31,7

407mm

12mm

40mm
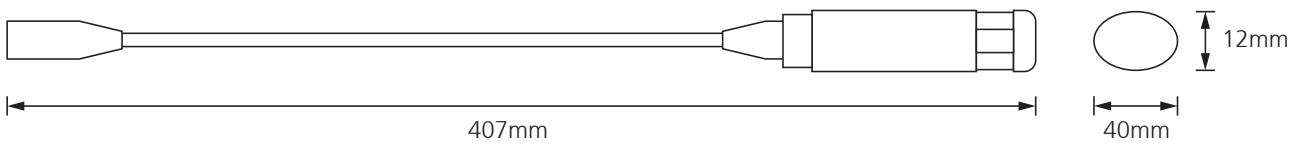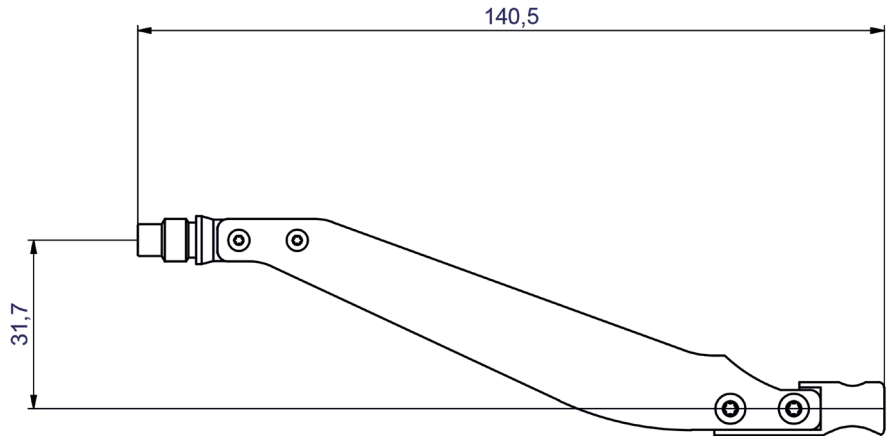
Laser

Storage Case

ProLaser fitted to crawler

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BPP24

Proteus Power

Proteus Power provides compact, portable power with 5 hours inspection time... where will it take you? No need to rely on vehicle or mains power. Minicam'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.

Battery life dependant on operating conditions.

Compatibility

- Output short circuit protected
- LED Charge status indication
- LED battery fault indication
- Proteus battery state indication
- Proteus auto power down on low battery

Technical Data

Compatability	Proteus System
Dimensions (L x W x H)	280 x 100 x 120mm
Weight	4kg (8.80lb)

Proteus Power

120mm

280mm

100mm
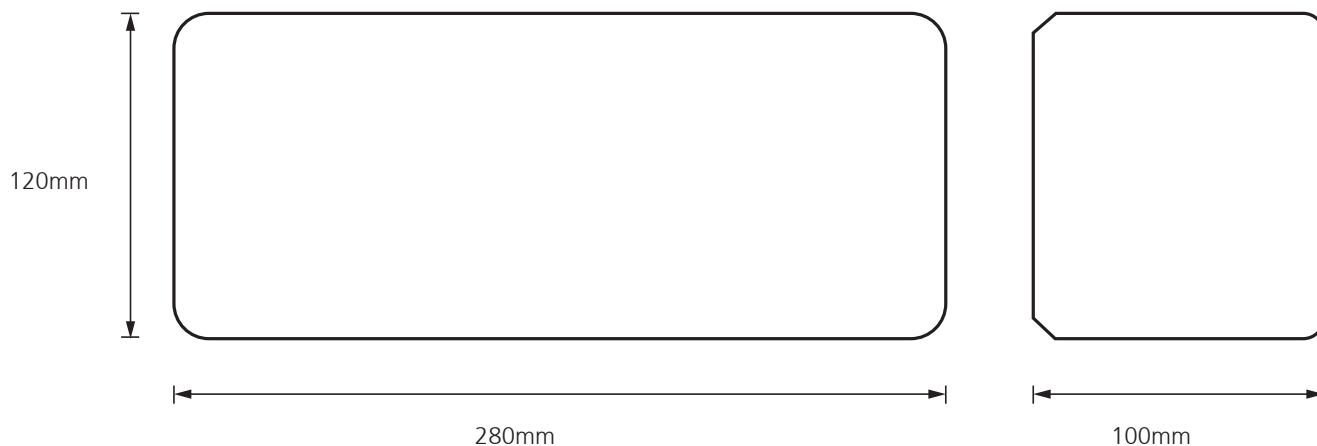
Battery Bag

Optional arry-bag ideal for storage of the battery pack. The easy access and velcro fasteners keep the battery secure while in use. The bag has an adjustable carry strap.

Battery Pack with Proteus CCU

Connectors and LED status lights

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RBP01/RBP02

Reel Bracket

This lightweight tubular bracket utilises the cable reel as a holder for the CCU (control unit). 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.

The Reel Bracket is available in 2 sizes, exclusively compatible with Proteus 200 and 300metre Motorised and Manual cable reels.

Compatibility

Technical Data

	RBP01	**RBP02**
Compatability	200m Reel Proteus	300m Reel Proteus
Dimensions L x W x H	340 x 215 x 115mm	435 x 220 x 118
Weight	648g	695g
Fixings	Bolts & Washers	Bolts & Washers

Reel Bracket

RBP01
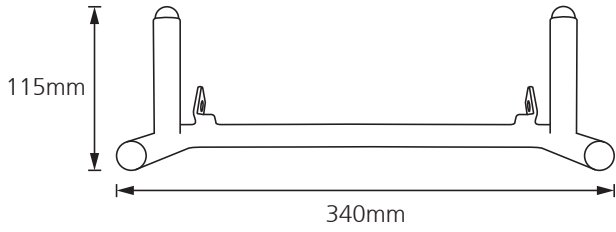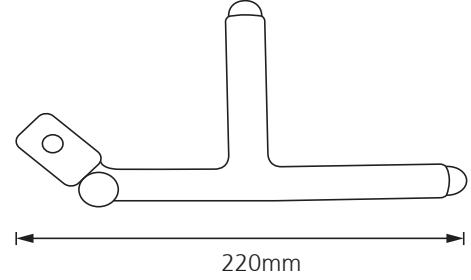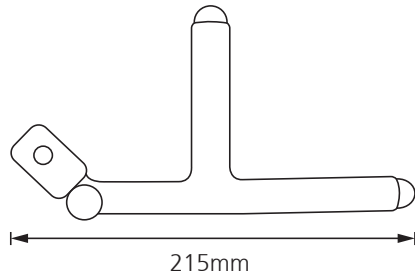
115mm

340mm

215mm

RBP02

118mm

435mm

220mm

In Use

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VGP200/300/350/500

Van Guide Pulley

Reduces friction and provides additional guidance for the cable when paying out and rewinding. For use with Minicam Motorised Cable Reels and Manual Cable Reels.
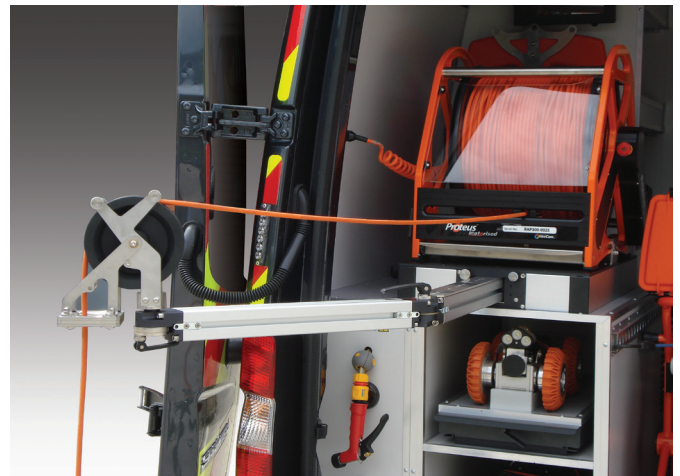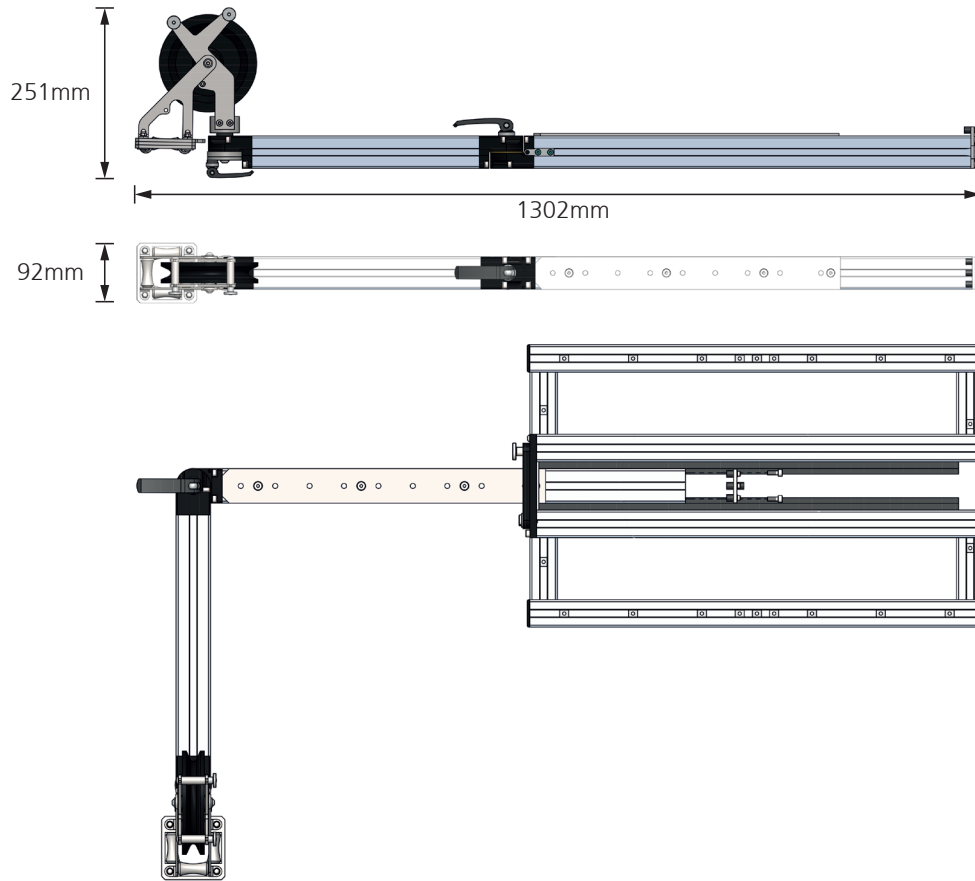

Compatibility

Technical Data

	Compatability
VGP200	RMP/RAP200
VGP300	RMP/RAP300
VGP350	ACR350
VGP500	ACR500

Van Guide Pulley

251mm

1302mm

92mm

Extendable multi-position arm

Cable guide pulley

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TTC01

CCU Tilting Table

Quick and easy to attach, the Tilting Table enables virtually unlimited manoeuvrability of the control unit position, to give the user customisable screen viewing and keyboard positions.

The table can be tilted 35° forwards and 75° backwards, with a full unobstructed 360° horizontal rotation. No tools required, the tilt table is simply attached using the adjustable clamps.

TTC01 is exclusively compatible with Minicam's Proteus and SOLOPro+ Control Units and Coiler/Compatible Coiler frames.

Compatibility
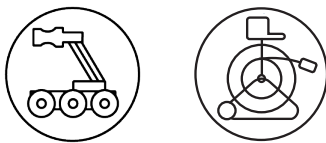
Technical Data

Dimensions (L x W x H)	35 x 30 x 27cm
Weight	3kg
Compatability	Proteus / Proteus Lite / SOLOPro+

CCU Tilting Table

27cm

35cm

30cm

TRP01
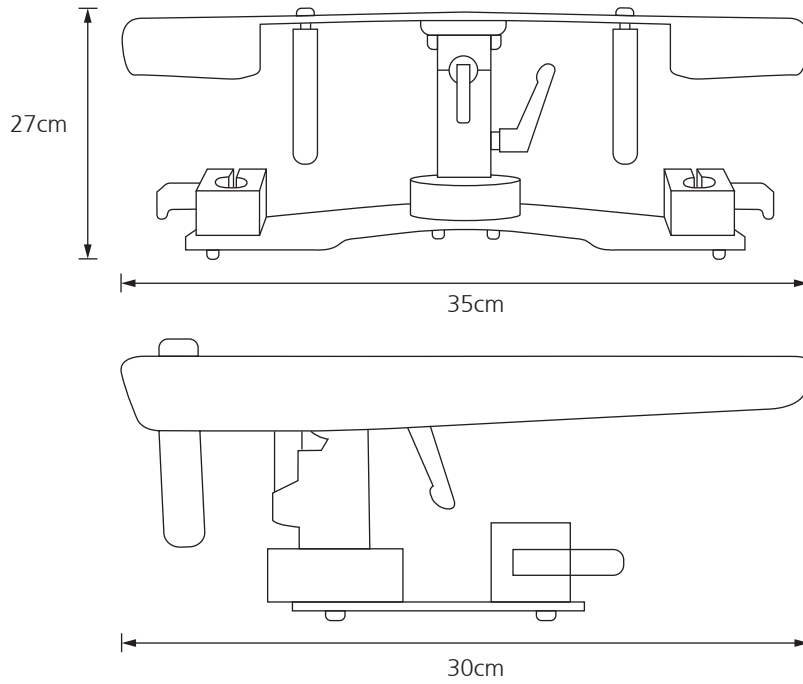
Manhole Top Roller

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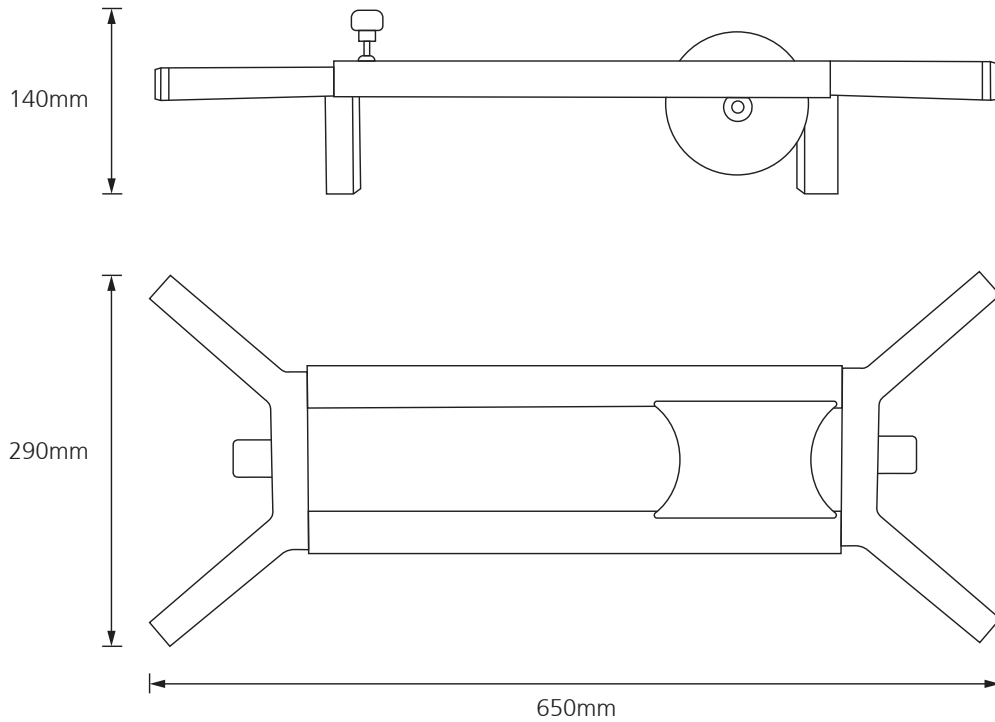Fully adjustable to fit most manhole sizes.

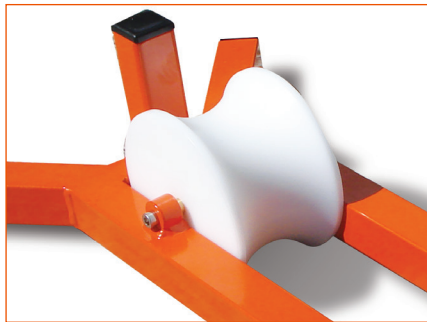## Compatibility

Technical Data

Dimensions L x W x H	650 x 290 x 140mm
Weight	4.45kg
Compatability	Proteus

Manhole Top Roller

140mm

290mm

650mm

Adjustability

Ability to extend the length of the Top Roller to be able to fit across most manhole sizes.

Roller

The roller helps prevent kinks in the cable by allowing a smooth payout and rewinding.

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PTP03

Portable Storage Trolley

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; control unit, reel, battery pack and accessory case. Simply wheel the unit to your location, connect a camera and crawler, and you're up and running in minutes.

The added convenience of Minicam's unique Proteus Power Pack (see Proteus Power Pack sheet), means 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.

Please Note: Equipment shown on trolley NOT included with PTP03
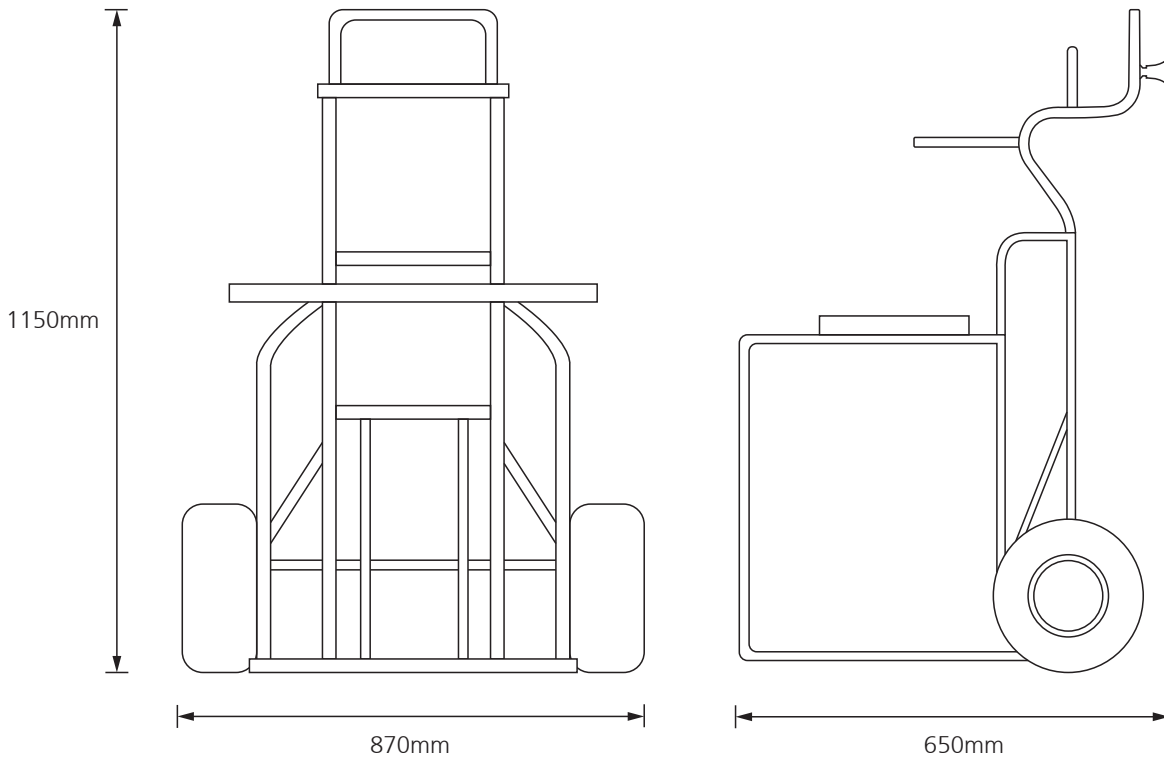**Battery life dependant on operating conditions.*

Compatibility

Technical Data

Compatibility	RMP300/RAP300
Dimensions	650 x 1150 x 870mm
Weight	10.5kg

Portable Storage Trolley

1150mm

870mm

650mm

Battery Pack in holder

No need to rely on vehicle or mains power. Minicam's unique ProteusPower Pack enables pipleline inspections in the most remost locations with in excess of 5 hours of inspection time.

Fixing Plate

Rear View

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CRP90

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Proteus Crawler

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

ALL STANDARD FEATURES:

- 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 Front Connector Cap
- Protective Rear Connector Cap
- Lowering Rope
- Tools

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

OPTIONAL
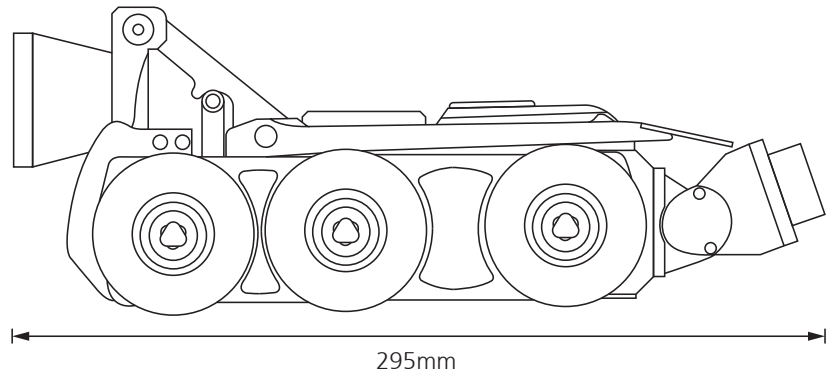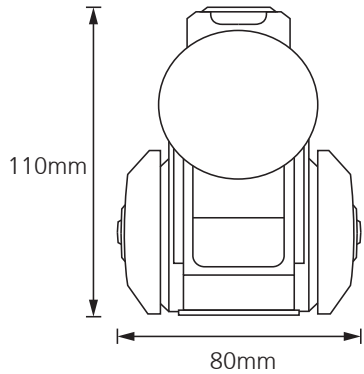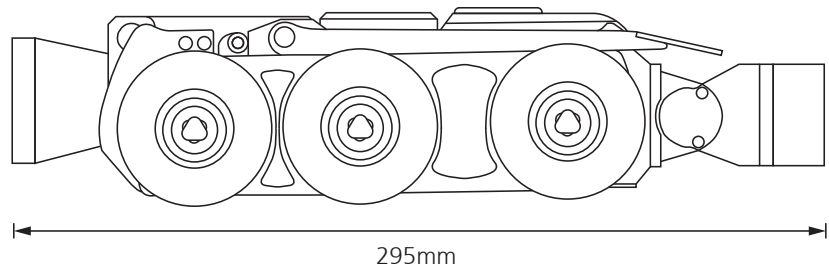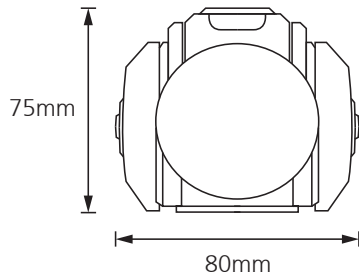- Carbide Wheels
- High Grip Wheels
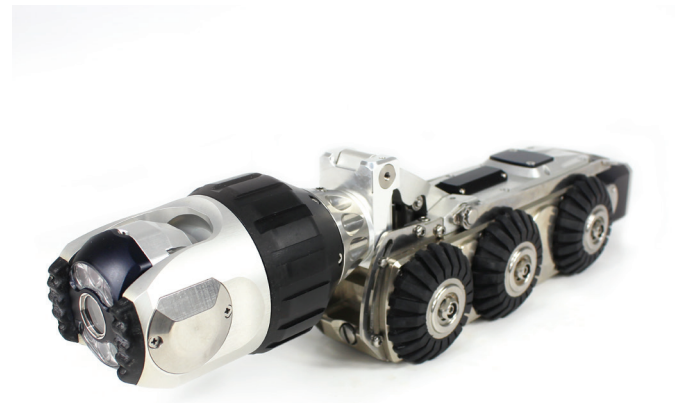
Compatibility
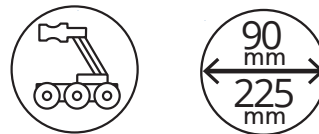
Technical Data

Pipe Sizes	90mm - 225mm
Weight	4.50kg

Proteus Crawler

75mm

80mm

110mm

80mm

295mm

295mm

Soft Black Rubber Wheels

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

Available in 4 sizes and Wide Axle. Other Performance Wheels available.

CRP140

Proteus Crawler

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.

ALL STANDARD FEATURES:

- 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 Front Connector Cap
- Protective Rear Connector Cap
- Lowering Rope
- Tools

PLUS

- 6x QRWX90SR 90mm Rubber Wheels
- Motorised Elevator - Range 54-205mm
- Articulated 'Knuckle' Connector

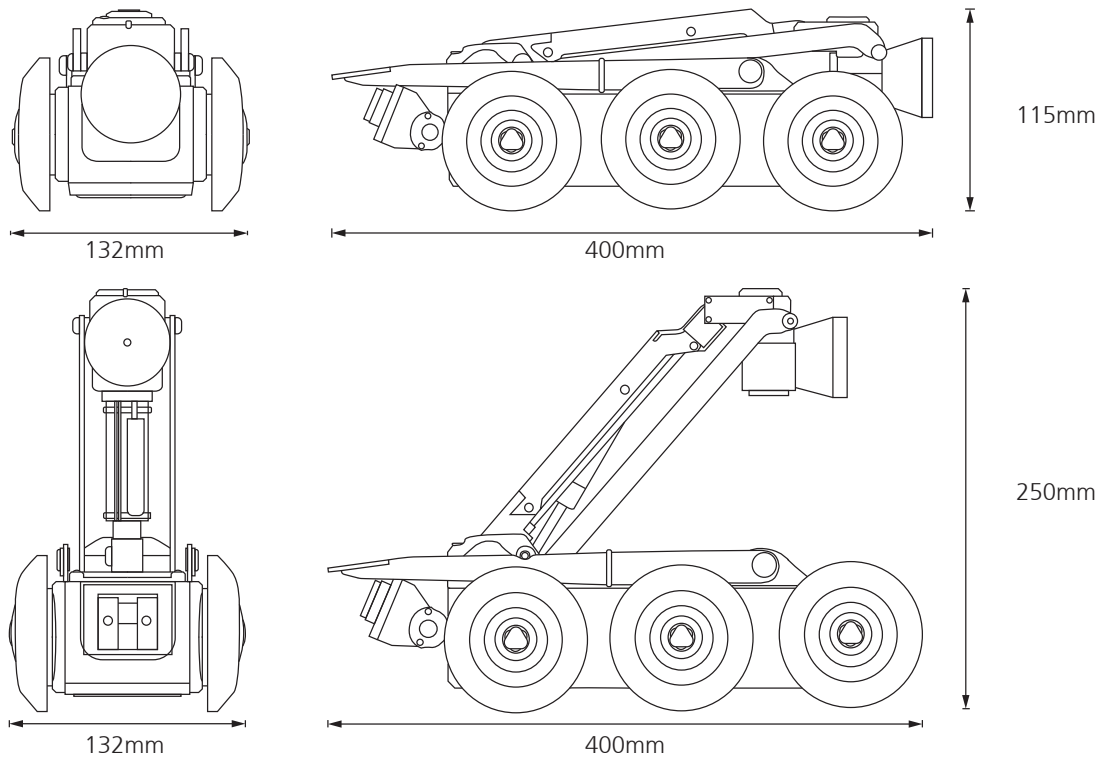### OPTIONAL

- Carbide Wheels
- High Grip Wheels

Compatibility

Technical Data

Pipe Sizes	from 140mm - 600mm to 1000mm with PCC01 Crawler Cradle
Weight	9.5kg

Proteus Crawler

132mm

400mm

115mm

132mm

400mm

250mm

Soft Black Rubber Wheels

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

Available in 4 sizes and Wide Axle.

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CPL150S

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Proteus Lite Crawler

The perfect companion to the RMP250 Reel. Proteus Lite Crawler has the same professional grade quality, reliability and accuract as our mainline Proteus Crawlers.

ALL STANDARD FEATURES:

- 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 Front Connector Cap
- Protective Rear Connector Cap
- Lowering Rope
- Tools

PLUS
- 6x QRWX90SR 90mm Rubber Wheels
- Manual Elevator - Rnage 60-112mm
- Heavay Duty Rear Connector

OPTIONAL
- Multi-Frequency Sonde
- Inclination Sensor
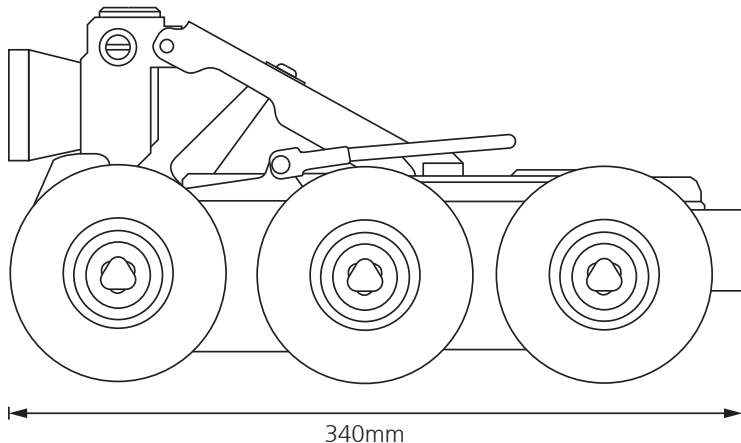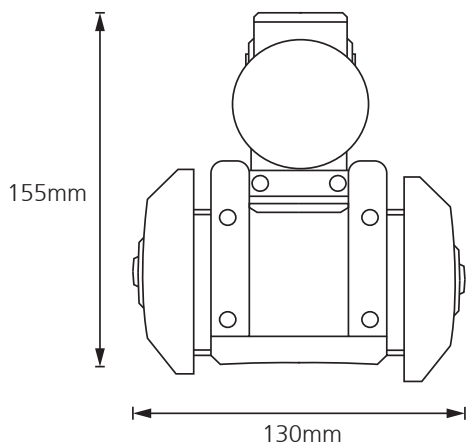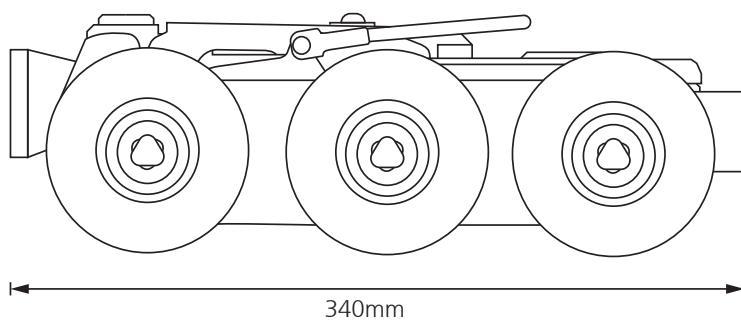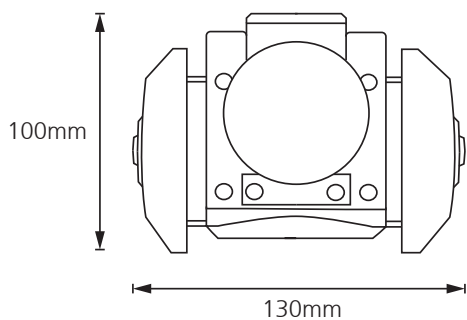- Carbide Wheels
- High Grip Wheels

Compatibility

150
mm
400
mm
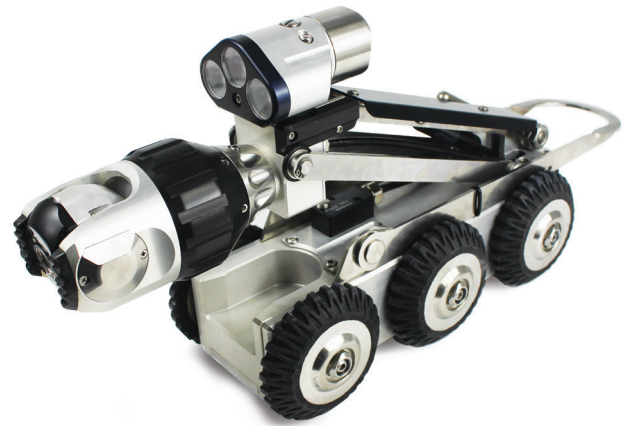
Technical Data

Pipe Sizes	from 150mm-400mm to 800mm with PCC01 Crawler Cradle
Weight	9kg

Proteus Lite Crawler

100mm

130mm

340mm

155mm

130mm

340mm

Soft Black Rubber Wheels

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

Available in 4 sizes and Wide Axel.

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CRP300

Proteus Crawler

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:

- 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 Front Connector Cap
- Protective Rear Connector Cap
- Lowering Rope
- Tools

PLUS

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

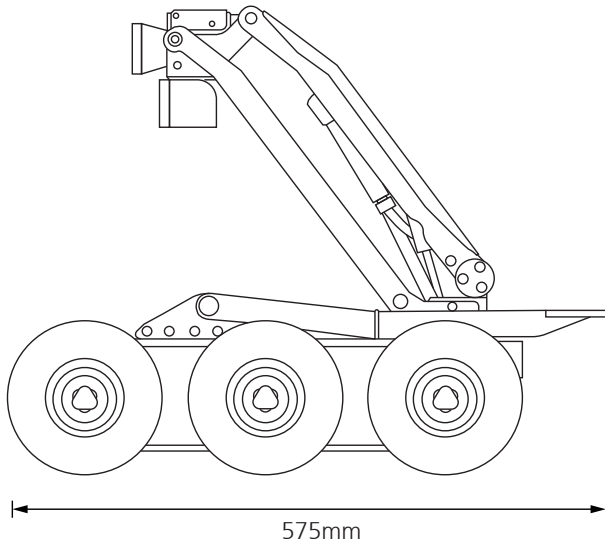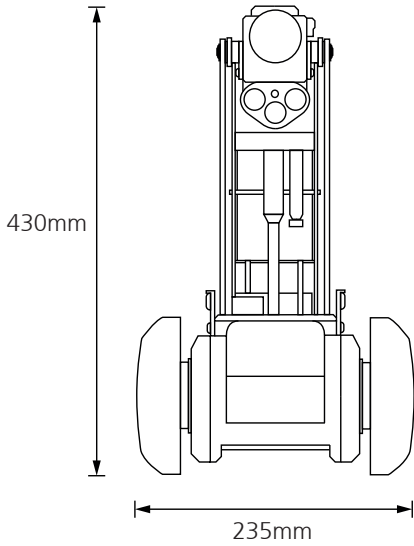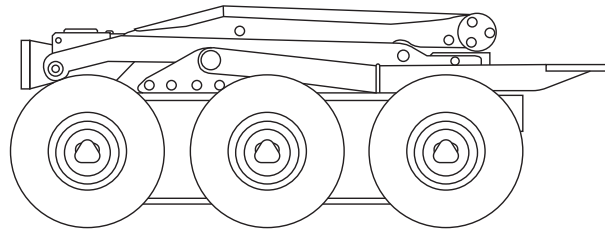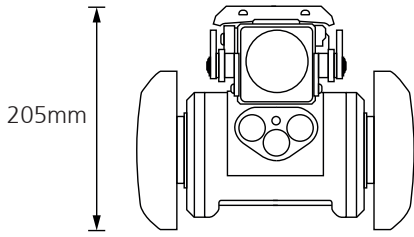### OPTIONAL

- Wide axle Balloon Wheels

Compatibility

Technical Data

Pipe Sizes	from 300mm-1000mm to 2200mm with Elevation Platform CEP300
Weight	32.0kg

Proteus Crawler

205mm

430mm

235mm

575mm

Soft Black Rubber Wheels

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

Available in 4 sizes and Wide Axle.

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CRP140-ExZ1

ATEX Crawler

Proteus ATEX Crawlers are 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 Proteus crawlers. The CRP140 ATEX crawler makes 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, wihtout introducing risk through use of electronic devices.

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

*CRP140-ExZ1 shown with optional ATEX Zone1 Crawler Cradle PCC01-ExZ1*

Compatibility

Technical Data

	CRAWLER
Pipe Sizes	from 140mm - 600mm to 1000mm with PCC01 Crawler Cradle
Weight	9.5kg

	CAM028L		CAM026L
Pipe Diameter Measurement Range	90 - 600mm	Pipe Diameter Measurement Range	90 - 600mm
Aligned Laser Spacing	30mm	Aligned Laser Spacing	25mm
Camera Sensor	530 HTVL	Camera Sensor	470 HTVL
Sensitivity	<1.0 Lux	Sensitivity	<1.0 Lux
Aperture/Field of view	F1.8 - F2.9 / 46° - 4.6°	Aperture/Field of view	F2.5/75°
Maximum Illumination Intensity	12.5k Lux at 150mm	Maximum Illumination Intensity	12.5k Lux at 150mm
Pressure Depth Rating	1 bar (14.50psi)	Pressure Depth Rating	1 bar (14.50psi)
Dimensions	155 x 84.5 x 84.5mm	Dimensions	132 x 73 x 73mm
Weight	1148g	Weight	865g

	APB300		ALB300
Pipe Diameter	300mm upwards	Pipe Diameter	300mm upwards
Illumination System	9 High Power LEDs	Illumination System	9 High Power LEDs
Backeye Camera	YES	Backeye Camera	NO
Pressure Depth Rating	1 bar (14.50psi)	Pressure Depth Rating	1 bar (14.50psi)
Dimensions	85 x 150 x 55mm	Dimensions	52 x 150 x 55mm
Weight	480g	Weight	400g

ATEX Crawler

132mm

400mm

115mm

132mm

400mm

250mm
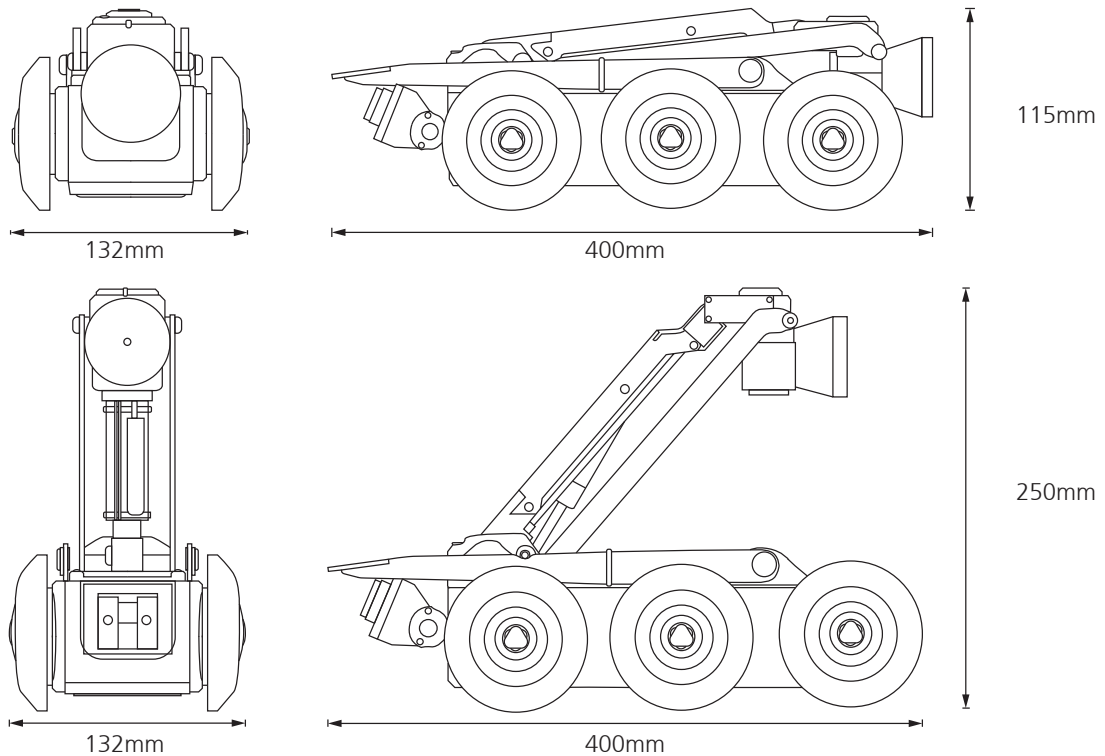
CAM28L-ExZ1

Optical and digital zoom function to allow distant objects to be viewed in much greater detail. Continuous 360° rotation and 135° pan. Integral distance sensor and twin lasers to enablle accurate pipe diamter, defect and object measurement.

CAM26L-ExZ1

Continuous 360° rotation and +/- 135° pan. Integral distance sensor and visible lasers to enable accurate pipe diameter, defect and object measurement.

ALB300-ExZ1 / APB300-ExZ1

Minicam LED pods and auxiliary lights, with and without backeye are also available in ATEX Zone 1 certified versions.

Cameras, Auxiliary Lights and LED pods shown above are purchased separately (not included with CRP140-ExZ1) .

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Complete ATEX Push Camera System

SOLOPro+ ATEX systems 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 that alternative methods, giving you a clear, sharp eye into the unknown, without introducing risk through the use of electronic devices in explosive atmospheres.

Feature rich, Minicam's CCU210 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 SOLOPro+ system.
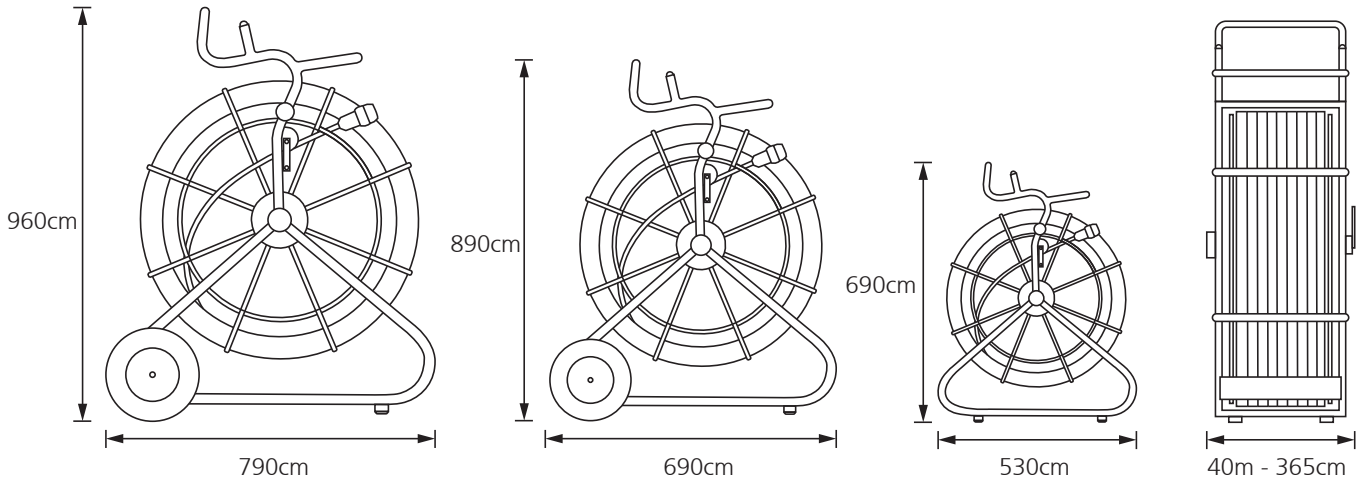
Compatibility

Technical Data

Construction	Welded Steel
Finish	Powder Coated
Distance Counter Units	Feet, Metres
Controls	Friction Brake
Weight	40m / 60m / 100m
Sonde	22kHz / 512Hz / 640Hz
Pressure	Duel Pressure Sensors

ATEX Push Camera System

960cm

790cm

890cm

690cm

690cm

530cm

40m - 365cm

CAM026L-ExZ1

Continuous 360° rotation and +/- pan. Integral distance sensor and visible lasers to enable accurate pipe diameter, defect and object measurement.


CAM025-ExZ1

Stainless steel housing features 4 high powered ultra-bright LED lights and a scratch resistant sapphire glass to protect the lense.

100m/60m - 370cm

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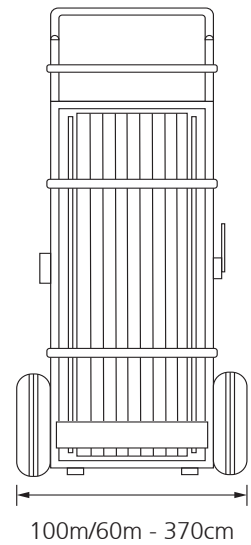
CCU210

minicam

SOLOPro+ Control Unit

Feature rich, Minicam's CCU210 control Unit has an integral joystick for camera control, 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 this brain of SOLOPro+ system. The control unit is shipped with ProPIPE+ and WinCan software pre-installed as standard.

250mm

435mm

390mm
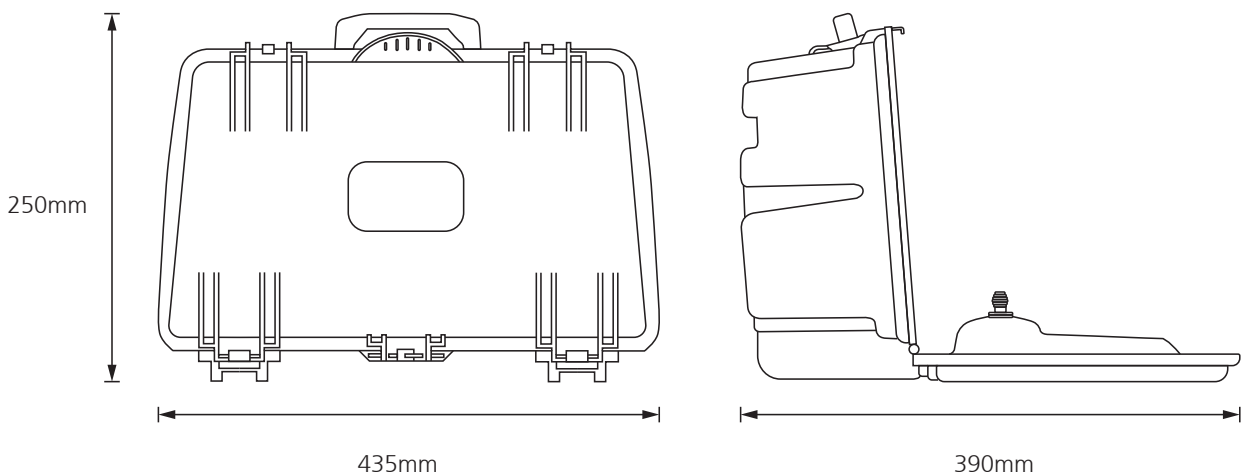
Technical Data

Video Format	PAL
Battery	6 hour Lithium-Ion
Charging	Mains Power (100-240 Vac) or vehicle power (12 or 24 VDC) using supplied adaptors
Display	8" TFT LDC (800x600 pixels) Sunlight viewable
Keyboard	Full QWERTY style membrane keyboard with arrow keys for navigation and seperate joystick for camera control
Video Recording	MPEG4 (WinCan compatible)
Image Capture	JPEG (live or from recorded video)
Text Overlay	16 page (selectable text and colours)
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 (8.5lb)
Dimensions	435mm x 250mm x 140mm

SOLOPro+ Control Unit

Illumination

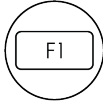Increase or decrease the intnsity of the ultra-bright camera LEDs.

Survey Features

Access embedded repoting software to create detailed on-site reports.

SONDE Settings

Set the freuency 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.

Alternative Languages

The SOLOPro+ CCU is currently available with keyboards in English, French, German and Russian.

Write Screen Text

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

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.
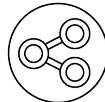
Screens Intensity

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

Joystick Control

The left hand joystick controls crawer 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 ssecure, immediate team-wide access online.

Configure Preferences

Easily and quickly confifure the control unit 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.

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CCU208

Proteus Control Unit

Feature rich, Minicam'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. The control unit is shipped with ProPIPE+ and WinCan software as pre-installed as standard.
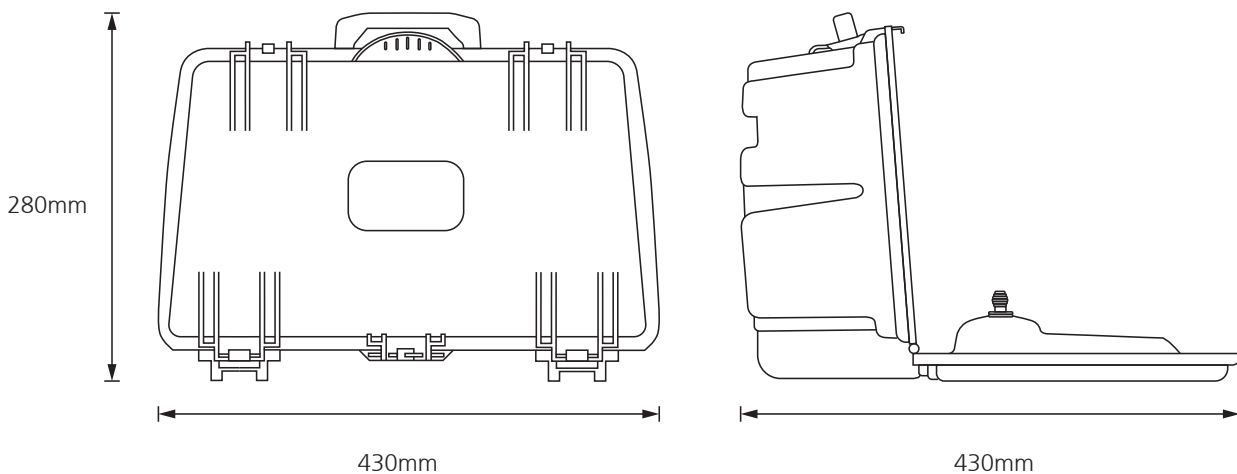
280mm

430mm

430mm

Technical Data

Video Format	PAL
Battery	Lithium-Ion (CCU stand alone) 6 hours
Battery	Lithium (CCU and Comp Coiler) 3 hours
Charging	Mains Power (100-240 Vac) or vehicle power (12 or 24 VDC) using supplied adaptors
Display	10" XGA (1024 x 768 pixels) Sunlight viewable
Keyboard	Full QWERTY style membrane keyboard with arrow keys for navigation and seperate joystick for camera control
Video Recording	MPEG4 (WinCan compatible)
Image Capture	JPEG (live or from recorded video)
Text Overlay	16 page (selectable text and colours)
Internal Memory	32GB (expandable to 128GB)
External Media	SDHC and USB 2.0 Memory Stick
Language Support	Multiple
Connections	Power and Cable Reel
Environmental Rating	IP54
Weight	5.5kg
Dimensions	430mm x 280mm x 150mm

Proteus Control Unit

Illumination
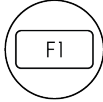Increase or decrease the intnsity of the ultra-bright camera LEDs.

Survey Features
access embedded repoting software to create detailed on-site reports.

SONDE Settings
Set the freuency 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.

Alternative Languages
The Proteus CCU is currently available with keyboards in English, French, German and Russian.

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

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.

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.

Joystick Control
The left hand joystick controls crawer 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 ssecure, immediate team-wide access online.

Configure Preferences
Easily and quickly confifure the control unit 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.

SYS-SPP40/60/100

Push Camera Systems

SOLOPro+ has all you need to inspect pipes, document your findings, and create detailed reports for on-site delivery. It captures detailed footage under tough conditions, and its interface offers robust tools – including observation entry and reporting options – and accepts USB and SD media for easy offload of data, video, images and reports. SOLOPro+ is WiFi enabled to allow remote access to stored images and data.
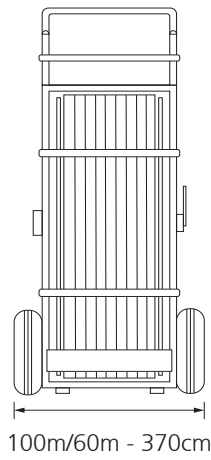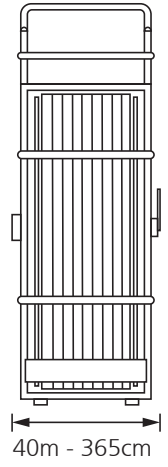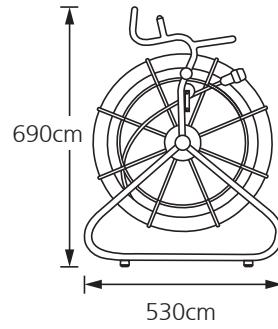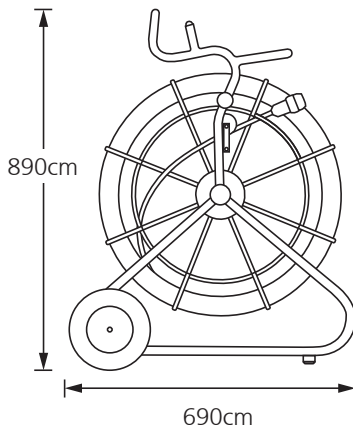
Compatibility

Technical Data

Construction	Welded Steel
Finish	Powder Coated
Distance Counter Units	Feet, Metres
Controls	Friction Brake
Weight	40m - 15kg / 60m - 20kg / 100m - 30kg
Sonde	22kHz / 512Hz / 640Hz

Push Camera Systems

960cm

790cm

890cm

690cm

690cm

530cm

40m - 365cm

100m/60m - 370cm
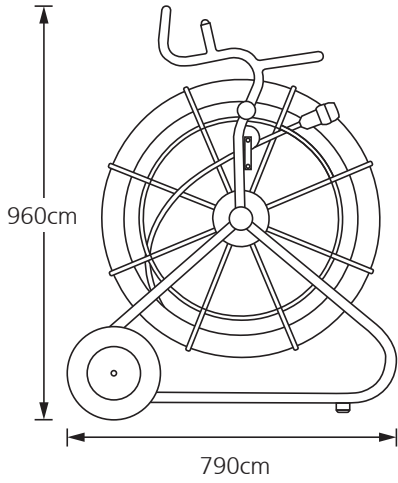
100 METRE

60 METRE

40 METRE

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CGP01

Cable Guide Pulley

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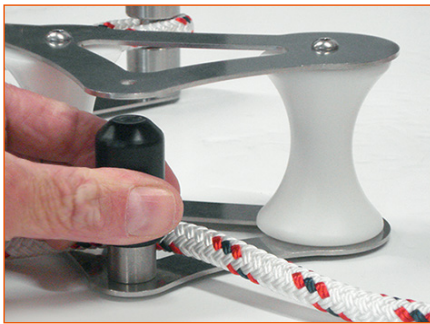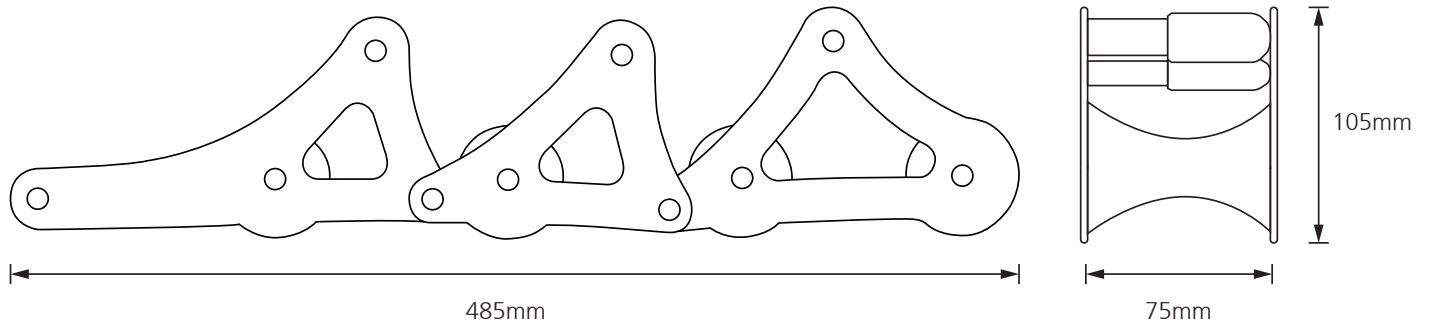

Compatibility

Technical Data

Length	485mm
Width	75mm
Height	105mm
Weight including rope	2.8kg
Compatability	Proteus

Cable Guide Pulley

485mm

75mm

105mm

Quick Release to aid cable feeding

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PCC01

Crawler Cradle

The Crawler Cradle adapts Minicam's 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 CPL150S, and CRP140 crawlers, PCC01 comes supplied with four 220mm balloon wheels.
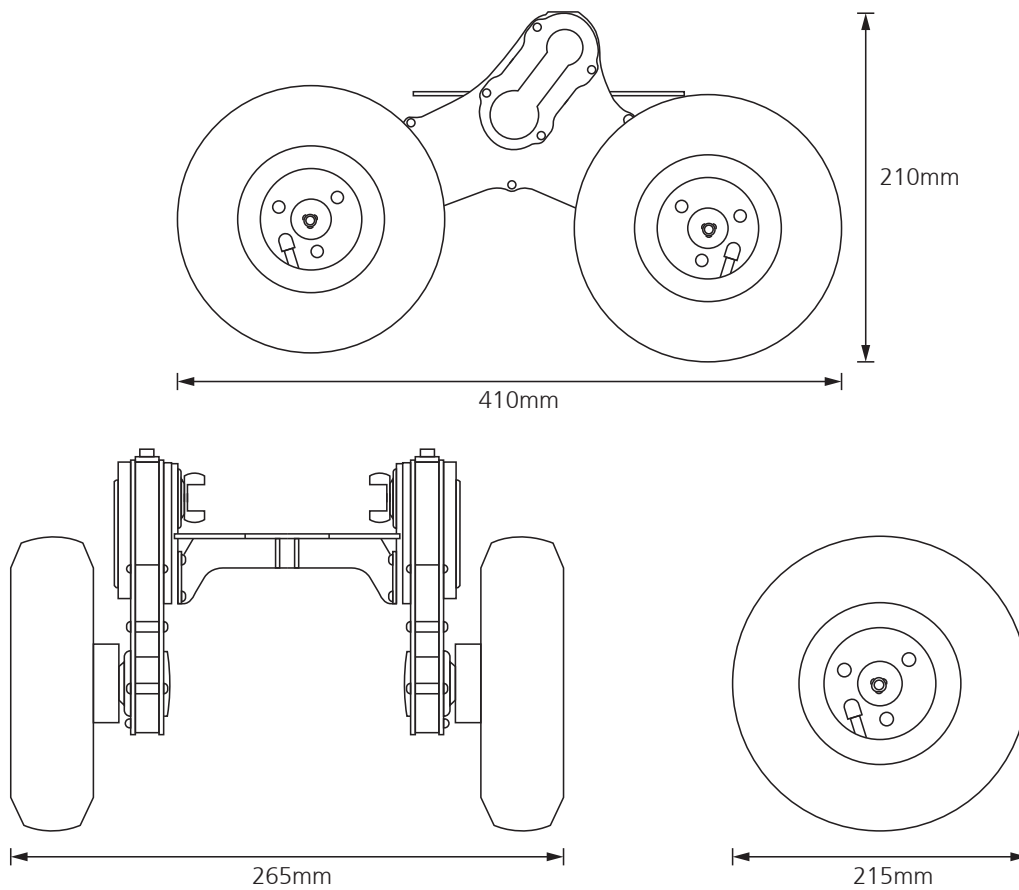
Compatibility
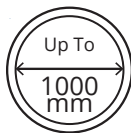
Technical Data

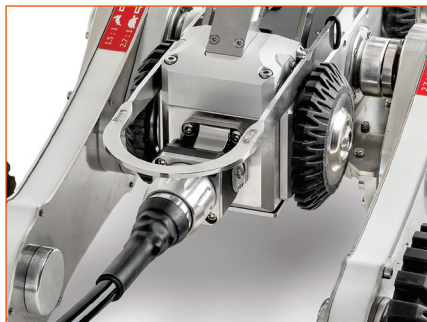| Dimensions	410 x 265 x 220mm
Weight	7.65kg
Compatability	CRP140 / CLP150 Crawlers

Note: 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.

Crawler Cradle

210mm

410mm

265mm

215mm

Gear Selector

The adjustable torque allows you to decide between low speed and high torque or high speed and low torque.

Rear Connection

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SSP01/SSP02

SeeSnake® Interface

Sturdy and robust construction, the Minicam SeeSnake Interface unit connects the SeeSnake Standard and Mini Camera to Minicam's intuitive and advance Proteus Control Units and SOLOPro+ Control Units.

Please Note: Onlu compatable with SeeSnake Standard and Minicam products
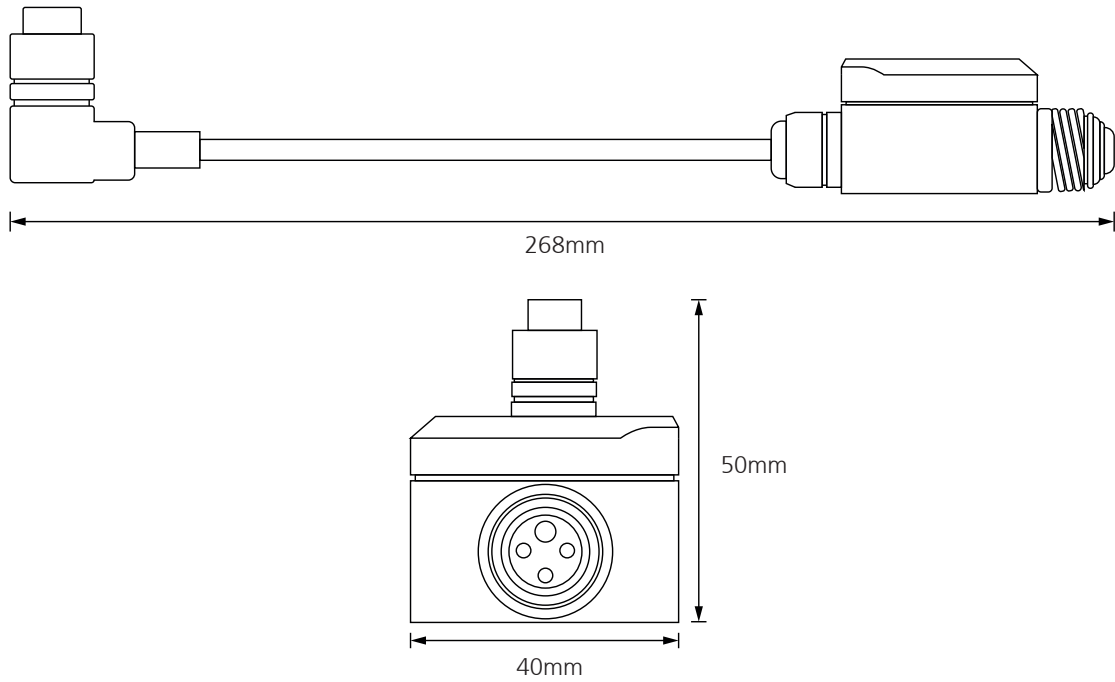
Compatibility

Technical Data

	SPP01	SPP02
Compatability	Proteus CCU	SOLOPro+ CCU
Dimensions	50 x 268 x 40 mm	50 x 268 x 40 mm
Weight	115g	115g

SeeSnake® Interface

268mm

50mm

40mm

Attached to the CCU

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Lateral Pin Kit

A useful addition to the SOLOPro+ 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.
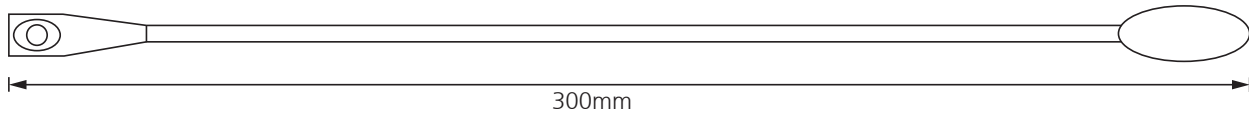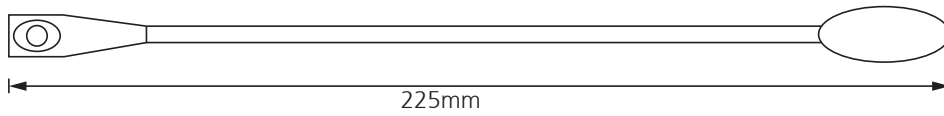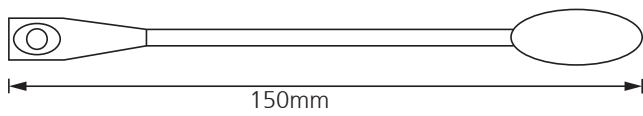
Compatibility

Technical Data

Small Pin Length	150mm
Medium Pin Kit	225mm
Larger Pin Kit	300mm
Fixings	6 Screws
Case	Foam lined with snap lock lid
Compatability	Proteus / SOLOPro+

Later Pin Kit

150mm

225mm

300mm

Lateral Pins

Three sizes of pin small 150mm (6in), medium 225mm (9in) large 300mm (12in), fixings and full instructions included.

Attached

Kit Case

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Roller Skids

Use Minicam Roller Skids to increase the effectiveness and lifespan of your pipeline inspection system. Manufactured from high quality 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 diameter keeping the camera head centered in the pipeline at all times.

The roller skids expand the 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 negotiate multiple corners and bends and increase the depth range significantly.

Available in 2 sizes to fit Self Levelling Axial Camera (CAM025) and the Pan & Rotate Camera (CAM026). Manufactured from stainless steel and ABS plastic the device is sturdy, rugged and corrosion resistant to withstand the punishment of daily field work.
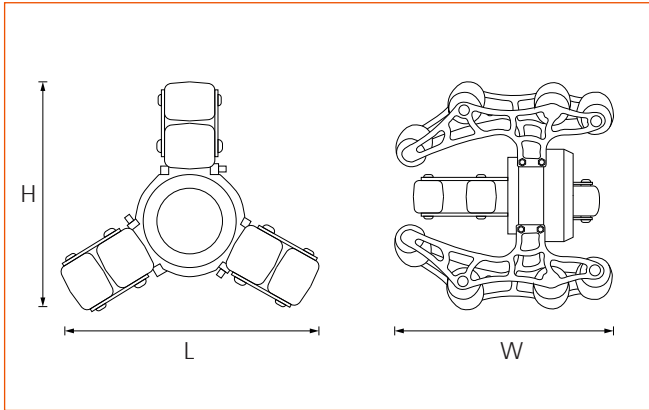
Compatibility

6in
9in
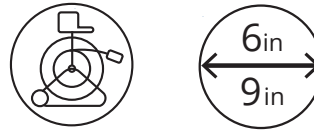
Technical Data

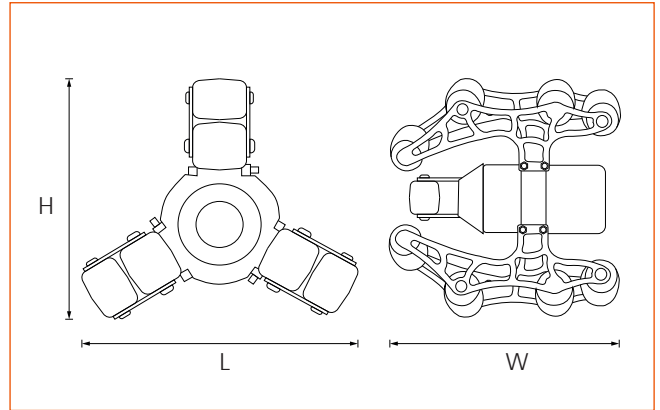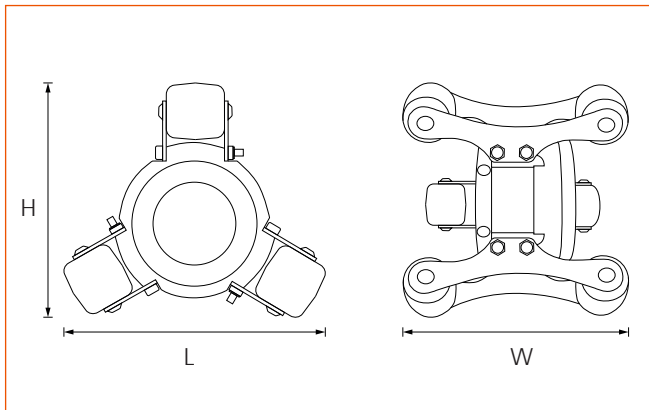|		
A	ASS-002-009	180mm Roller Skid for CAM025
B	ASS-001-955	180mm Roller Skid for CAM026
C	ASS-002-160	130mm Roller Skid for CAM026
D	ASS-002-008	130mm Roller Skid for CAM025

Roller Skids

ASS-001-955

Dimensions - L x W x H
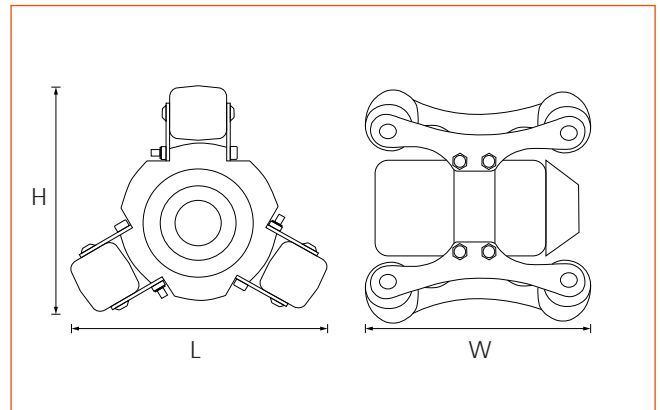160mm x 155mm x 140mm

ASS-002-009

Dimensions - L x W x H
150mm x 155mm x 140mm

ASS-002-160

Dimensions - L x W x H
120mm x 110mm x 105mm

ASS-002-008

Dimensions - L x W x H
115mm x 110mm x 105mm

CCP60/CCP100

Compatible Coiler

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 power coated finish.
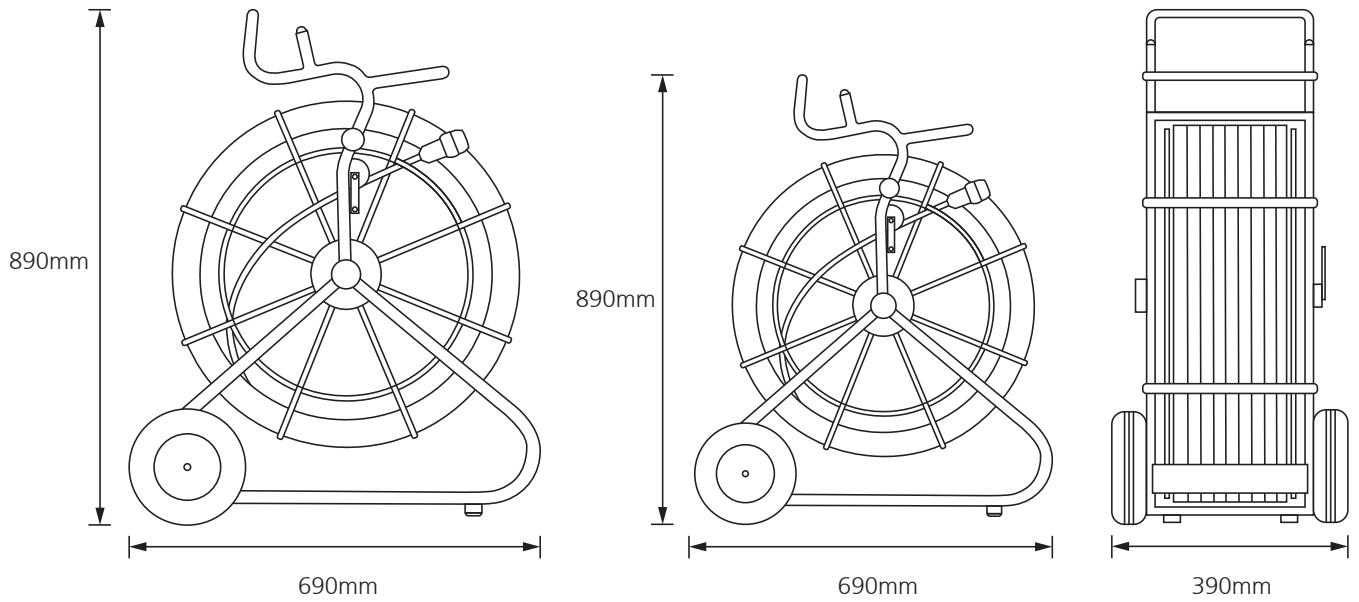
Compatibility

Technical Data

	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

Compatible Coiler

890mm

690mm

890mm

690mm

390mm

100 Metre
Compatible with CAM026 Pan & Rotate camera.

60 Metre
Compatible with CAM025 Axial camera

Centering Skids
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.

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ASS-000-001A / 002A / 003A

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Centering Skids

Centring Skids optimise your view in pipes 75mm and larger. Manufactured from ABS plastic, which can be washed and wiped clean, the skids are sturdy and rugged to withstand the punishment of daily field work. Quick and easy to fit. Minicam's Proteus Compatible Coiler (CCP100/CCP60) is shipped with a complete set of 3 centring skids and a skid removal tool.
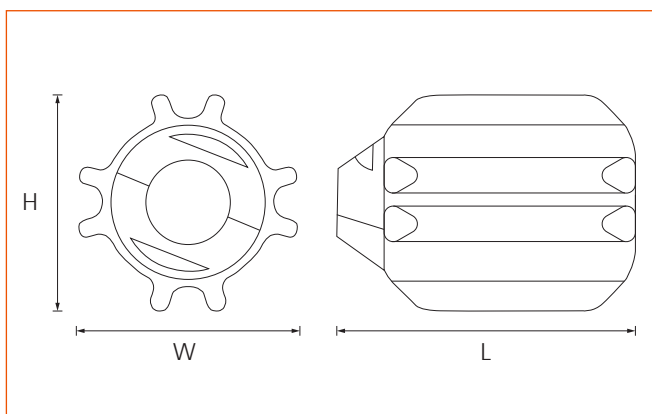
Technical Data

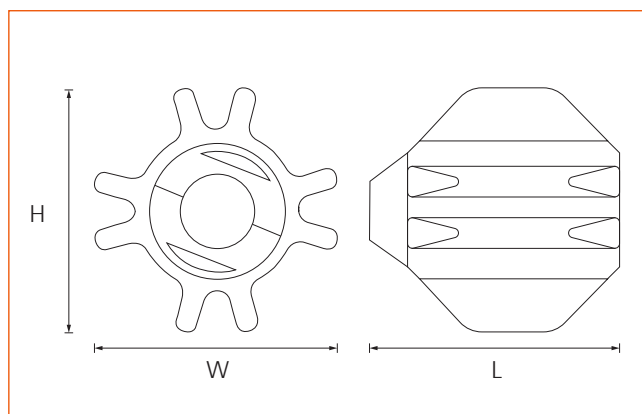|		
A	ASS-000-001A	4inch Centering Skid
B	ASS-000-002A	6inch Centering Skid
C	ASS-000-003A	Protection Skid
D	FAL-000-667	Skid Removal Tool

Compatibility

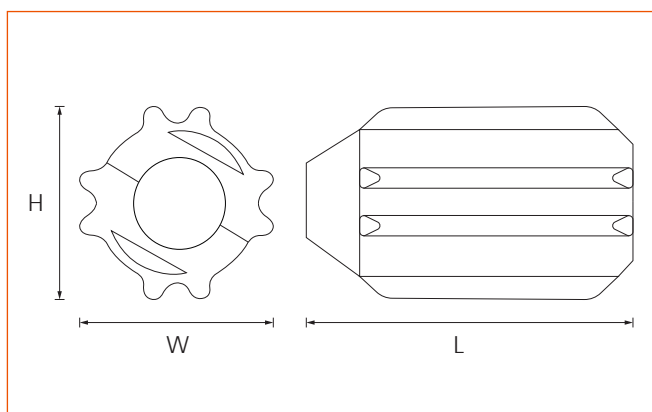Greater than 75 mm
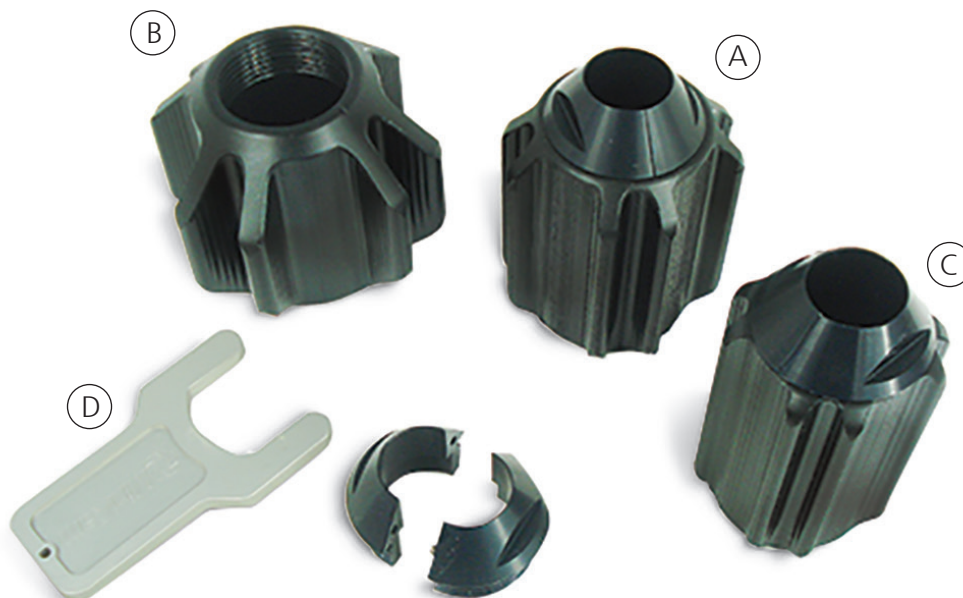
Centering skids

ASS-000-001A

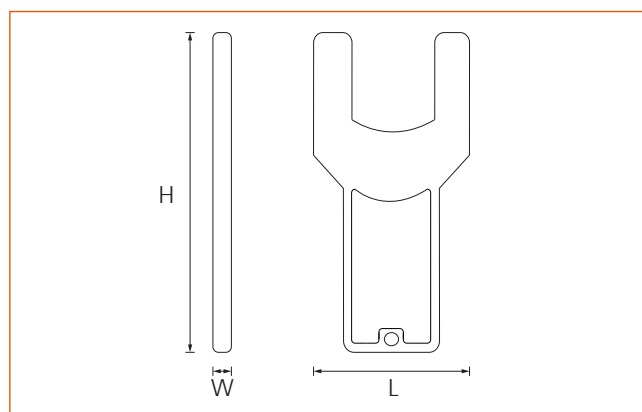Dimensions - L x W x H
102mm(4inch) x 70mm x 70mm

ASS-000-002A

Dimensions - L x W x H
152mm(6inch) x 100mm x 100mm

ASS-000-003A

Dimensions - L x W x H
102mm(4inch) x 60mm x 60mm

FAL-000-667

Dimensions - L x W x H
61mm x 6mm x 102mm

PCC01-ExZ1

ATEX Crawler Cradle

The ATEX Zone1 Crawler Cradle adapts Minicam's CRP140-ExZ1 crawler for use in large diameter pipes. Versatile, quick and easy to attach, the cradle is engineered, built and tested for safe use in some of the most dangerous situations.

The CRP140 ATEX crawler makes 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, wihtout introducing risk through use of electronic devices.
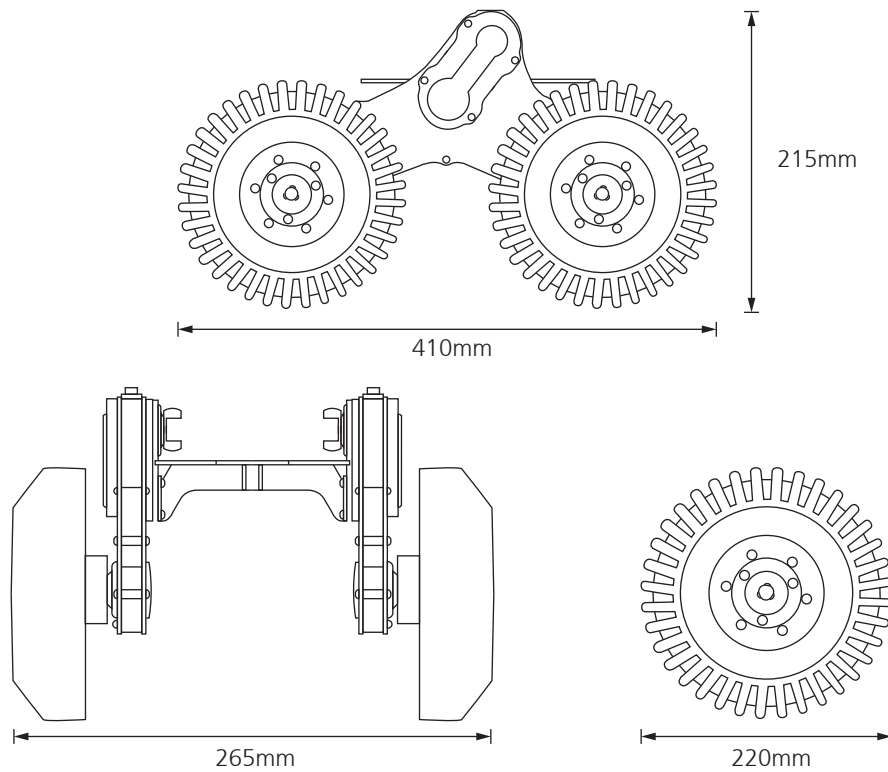
Compatibility

Up To
1000
mm

ATEX ZONE 1
Ex
CERTIFIED

Technical Data

Dimensions	410 x 265 x 220mm
Weight	7.65kg
Compatability	CRP140 / CLP150 Crawlers

ATEX Crawler Cradle

215mm

410mm

265mm

220mm

Gear Selector

The adjustable torque allows you to decide between low speed and high torgue or high speed and low torque.

Rear Connection

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RAP200/300
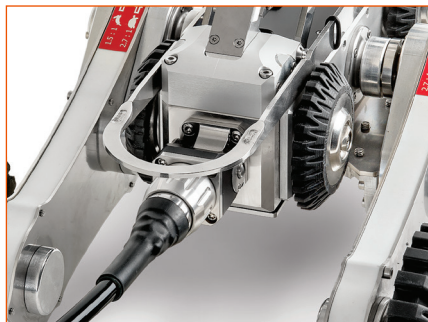
Motorised Cable Reel

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.

Minicam 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 Control Unit.

Compatibility

Technical Data

	RAP200	RAP300
Cable Length	250 metres	350 metres
Dimensions (L x W x H)	530 x 320 x 520mm	530 x 440 x 520mm
Weight	30.5kg	40.5kg
Power Supply	24v	24v
Environmental Protection	IP54	IP54
Optional Remote Controller	RJP/RCP4	RJP/RCP4

Motorised Cable Reel
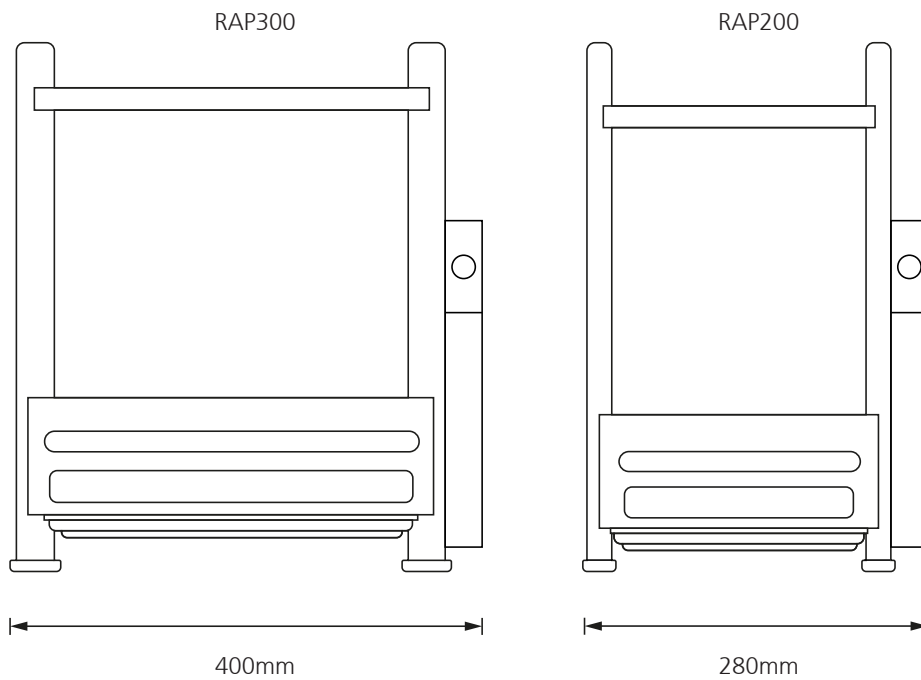
RAP300

RAP200

400mm

280mm

RAP300

RAP200

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ATEX LED Pod and Aux Light

LED Pods

Ultra-bright LED auxiliary light head adds extra illumination for inspections in larger pipe diameters. The twin light pods have manually adjustable arms to give full horizontal 180° rotation and 90° upward rotation. The colour rear view backeye camera aids crawler reversing.

Auxiliary Light

Stainless steel housing features three high powered ultra-bright LED lights and a scratch resistant sapphire glass to protect the lens.

Compatibility
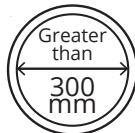
Technical Data

APB300 - ExZ1

Pipe Diameter	300mm upwards
Illumination System	9 High Power LEDs
Backeye Camera	YES
Pressure Depth Rating	1 bar (14.50psi)
Dimensions	85 x 150 x 55mm
Weight	480g

ALB300 - ExZ1

Pressure Depth Rating	1 bar (14.50psi)
Dimensions	84 x 68 x 50mm
Weight	306g
Backeye Camera	YES
Compatability	Proteus / Proteus Lite

APB300 - ExZ1

55mm

150mm

85mm

ALB300 - ExZ1

50mm

84mm

68mm
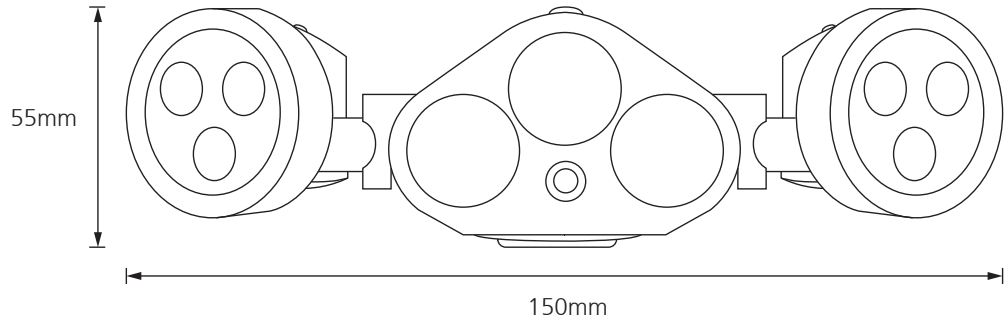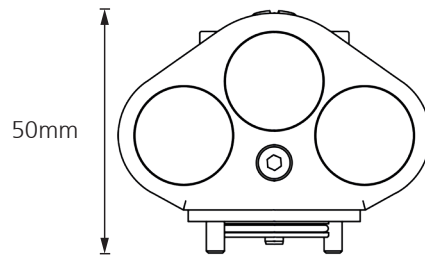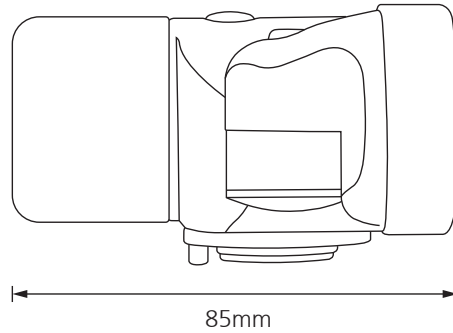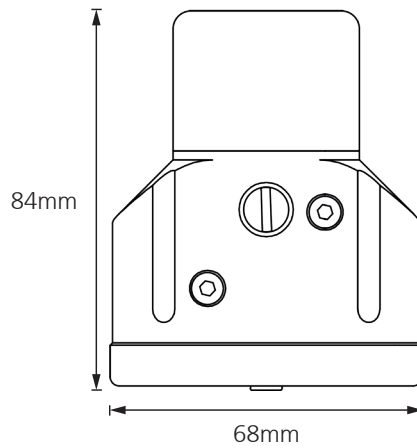
PROTEUS LITE

Proteus Lite System

Minicam's Proteus™ Lite brings together, the tried and trusted 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. Proteus Lite provides all the resources required to undertake efficient, easy to perform inspections, and with ProPIPE+™ and WinCan® Embedded software as standard, you can deliver accurate, detailed reports, instantly on-site. The system comprises a CCU208 Control Unit, RMPL250 Reel, CPL150S Crawler and CAM026 Camera.

Compact, space-saving design, robust construction with a powder coated finish, and equipped with easy-to-use features including a manually operated cable layering arm and meterage roller, which is easily removed for cleaning. The friction brake can be fully locked, unlocked or applied as a friction brake to avoid unwanted pay-off of the cable, and a sturdy winding handle folds away neatly to save space. The cable reel comes complete with 250 metres of 6.8mm Kevlar reinforced cable, and sports our signature "cow-horn" CCU locators, enabling a secure quick fit of the Proteus Lite control unit ready for work. For added flexibility an optional Tilt Table allows adjustment of the control unit position, to give the user optimal screen viewing and keyboard positions.
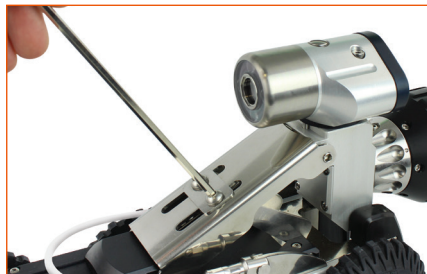
Compatibility

920mm

550mm

920mm

270mm

385mm
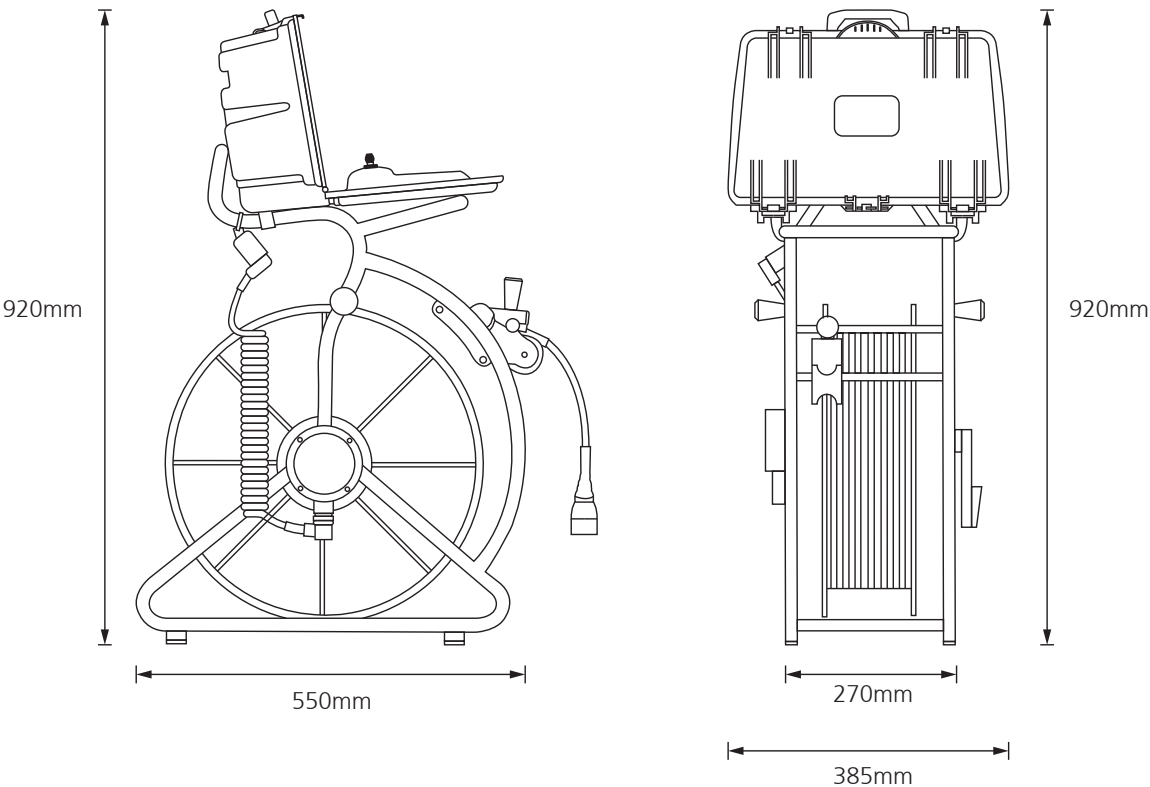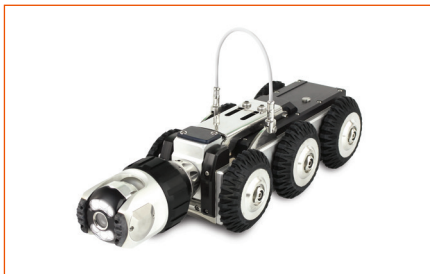
CPL150S Crawler

Quick Release Elevator

CAM026 360º Rotate & +/- 135º Pan

Technical Data

CCU208 Controller

Video Format	PAL
Battery	Lithium-Ion (CCU stand alone) 6 hours
Battery	Lithium-Ion (CCU and Comp Coiler) 3 hours
Charging	Mains power (100-240 Vac) or vehicle power (12 or 24 VDC) using supplied adaptors
Display	10.4" XGA (1024 x 768 pixels) Sunlight viewable
Keyboard	Full QWERTY style membrane keyboard with arrow keys for navigation and seperate joysticks for camera and crawler control
Video Recording	MPEG4 (WinCan compatiable)
Image Capture	JPEG (live or from recorded video)
Text Overlay	16 page (selectable text and colours)
Internal Memory	32GB (expandable to 128GB)
External Media	SDHC and USB 2.0 Memory Stick
Language Support	Multiple
Connections	Power and Cable Reel
Environmental Rating	IP54
Weight	5.5kg
Dimensions W x H x D	430 x 280 x 150mm

RMPL250 Reel

Construction	Welded Steel
Finish	Powder Coated
Distance Counter Units	Feet, Metres
Controls	Friction Brake
Weight	29.3kg
Dimensions L x W x D	550 x 385 x 700

CAM026 Pan and Rotate

Sensor	1/4" colour CCD with DSP
Effective pixels	512 x 582
Camera Sensor	470 HTVL
Sensitivity	<1.0 Lux
Aperture / Field of view	F2.5 / 75°
Image Orientation	Auto-levelling
Size	74mm (2.9in) dia
Illumination System	6 LED
Illumination Intensity	Adjustable (to 12.5K Lux at 150mm)
Construction	Aluminium / Stainless Steel
Pipe Compatability	150mm (6") and larger
Pipe Adaptor Kit	6" / 8" Skids

CPL150S Crawler

Pipe Diameter	150mm and larger
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 H x W	320 x 85 x 100mm

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LAT150

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Proteus Lateral System

The LAT150 is a mainline to lateral inspection crawler designed to offer range, reliability and functionality. Whether you're offering pre-acceptance inspection, searching for cross bores or inflows or conducting a structural survey, Minicam's self-propelled LAT150 has you covered.

The LAT150 offers a multitude of options to help overcome challenging situations and give complete control of each launch. The system has flexible but easy to use options available such as, various configurations and sizes of wheels, deployment tubes and the lateral pin.

To enable accurate positioning of the camera in larger mainlines, the LAT150 can be fitted with various sized deployed tubes. The unique design of the pivot provides quick, easy and tool-less attachment of deployment tubes in any size.
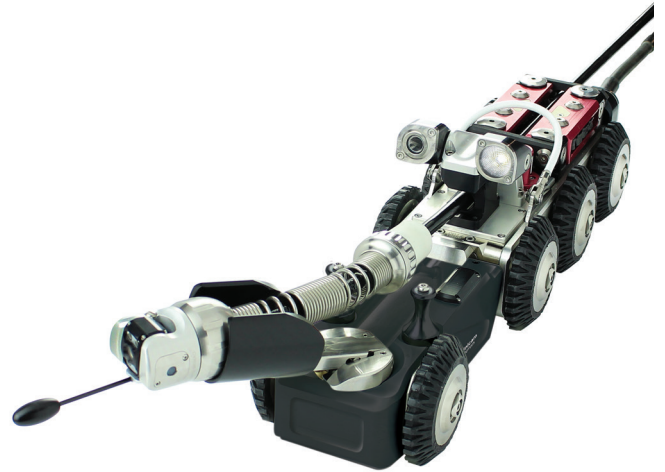
Technical Data

|	US	UK
Crawl Distance	1150ft	350m
Launch Distance	150ft	45m
Obsrvation Camera Lines		740TVL
Drivetrain Configuration		8x8x (8 Wheel Drive)
Wheel Compatability	3.5, 4.5, 5.5 inch	90, 115, 140 mm
Minimum Access Size	12 inch	300mm
IP Rating		IP68
Maximum Water Depth	33ft	10m
Internal Pressure (operational)	14.2PSI	1 bar
Sonde		33k 521 60Hz
Mainline Diameters	6 - 80 inch	150 - 2000mm
Material (front body)		Brass (Zinc Coated)
Materical (rear body)		Brass (Zinc Coated)
Material (lateral drive module)	Adnodized Aluminum	Anodised Aluminium
Dimensions L x W x H	24 x 5.5 x 5.1 inch	61 x 14 x 13 cm
Height with Observation Camera	6.3 inch	16 cm
Continuous monitoring of speed, internal pressure inclination and temperature		
Dual axis inclination sensor		
Rear articulated knuckle connector		
Quick change wheel lock		

LAT150 Crawler

13cm

61cm

13cm

14cm
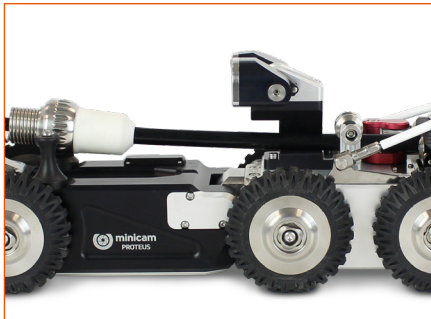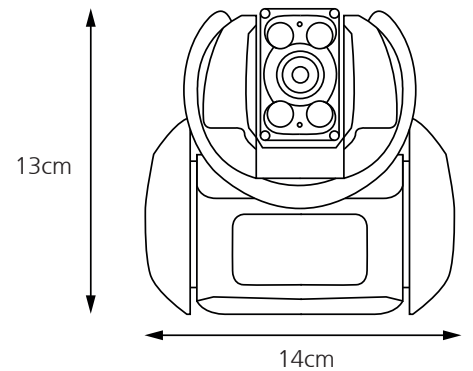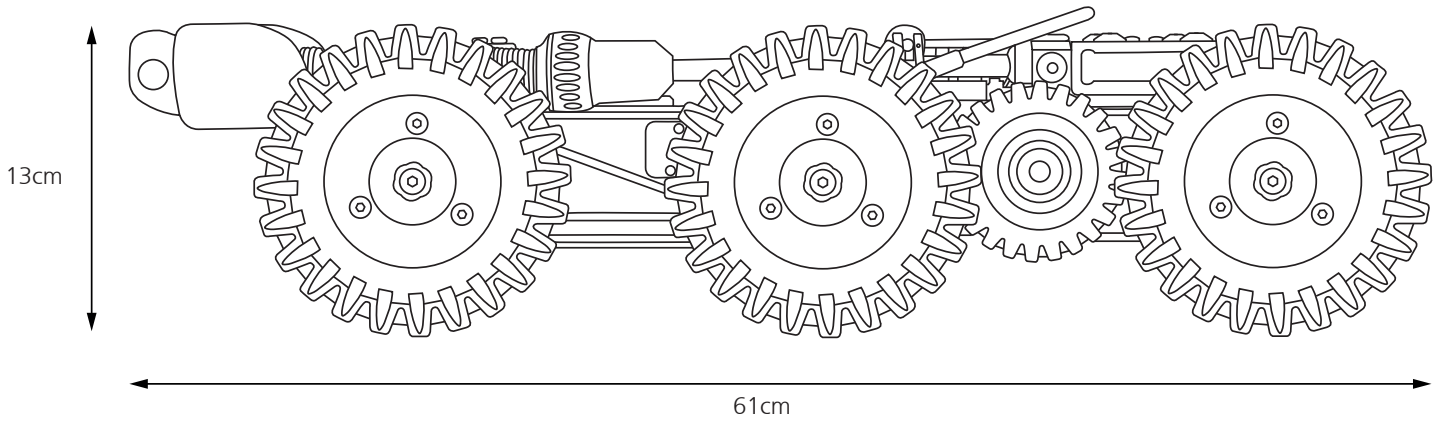
Hinged Mid-Section

The hinged mid-section allows for easier mainline entry access and reduces overall length making it easier in 6 inch pipes with front wheels drive so there is no need to lock the hinge when inserting into mainline pipe.

Lateral Drive Belt

The drive belt's flexible tread grips the push rod but prevents dust and dirt from building up with user replaceable belt tensioners allows for quick changeover on site.
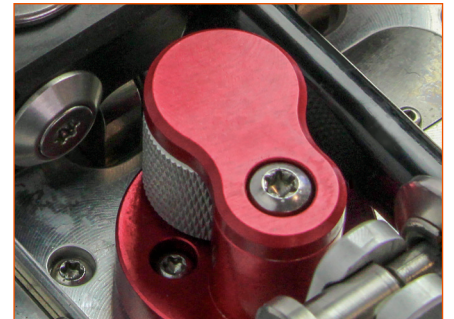
Meterage Counter

Close to deployment for an accurate lateral distance measurement.

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LCR350

Proteus Lateral Cable Reel

A single line 350 metre reel, combining 305 metres of high strength, Kevlar reinforced inspection cable with 45 metres of flexible 11 mm diameter push rod for the lateral camera. The LCR350 pays out matching the speed of the Proteus Lateral Crawler. The extendable arm of the guide roller has a 4-position locking system for ease of deployment at the rear of the vehicle.

Compatibility

Technical Data

	US	UK
Operation	3 phase motor	
Payout / Rewind	Cable layering mechanism	
Emergancy Stop Button	In-Built	
Push Rod Length	150ft	48m
Cable Length	1150ft	350ft
Cable Typer	Kevlar Reinforced	
Power Supply	100 - 240 VAC	
Power Consumption	600W	
Length	35 icnh	895 mm
Width	19 inch	480 mm
Height	28 inch	725 mm
Weight	264.5 lbs	120 kg
Van Guide Pulley	Integral	

Lateral Cable Reel

725cm

480cm

895cm
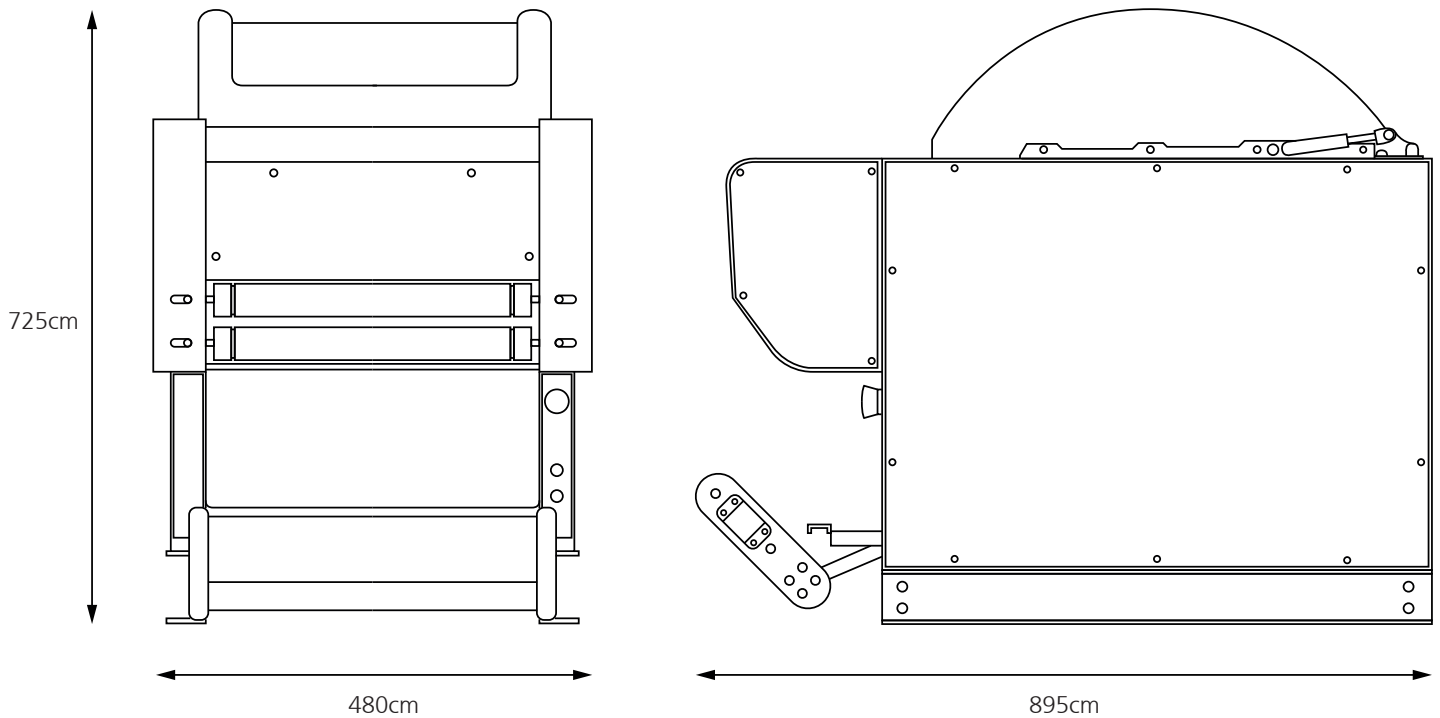
Guide Roller

The extendable arm of the guide roller has a 4-position locking system for ease of deployment at the rear of the vehicle.

Combined Cable

The 1150-foot reel combines the 350-metre reinforced cable with 45 metres of push rod.

Automatic Pay Out

The LCR350 automatically pays out matching the speed of the Proteus Lateral Crawler.

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