



SYNTHOCAMTM

Pipe Location and Survey Product Catalogue



SYNTHOTECH
innovative engineering

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Synthotech is an innovative engineering company that supplies the latest in-pipe maintenance, replacement, construction, location, survey and testing equipment.

We Innovate

Synthotech is a leader in the research and development of pipe renovation technology for the UK Gas Distribution and Transmission Industry, with an annual development portfolio of circa £2.5million. An Award-Winning Innovation company that has developed world firsts in robotics, vision and pipe systems that are used globally.

We Engineer

Synthotech is a British based Engineering Company, designing and developing new products and processes from our headquarters in Harrogate, North Yorkshire. A local company with global support, **Synthotech** has a multi-disciplined engineering team that doesn't just think outside the box, they 'think inside the pipe'[™] which allows for innovative elegant solutions to be engineered to the highest standards by Synthotech's precision engineering team.

We Deliver

Synthotech consistently delivers high quality products and services, working tirelessly with customers to ensure that new ways of working become 'Business as Usual'. This is underpinned by **SynthoCARE**, an exceptional product support service that not only provides workplace support but also provides loan equipment to ensure customers remain operational 24 hours a day, 365 days a year.



SynthoCam™ is the UK's leading live access in-pipe Close Circuit Television (CCTV) system for gas distribution pipes. Originally developed in 2005 to provide bespoke, reliable systems for safe use in live gas pipes, **SynthoCam™** has become the market leader, with over 300 systems operational day to day.

SynthoCam™ offers a wide range of products with exceptional performance and versatility:

- In pipe diameters: metallic – ½" to 48" / polyethylene (PE) – 16mm to 355mm
- At operational pressures up to 4bar
- Through vertical, horizontal and axial live access systems.

Many of the systems are interchangeable so the customer can select the system that best meets their need.

Fit for Purpose

SynthoCam™ is unique because it has been designed, developed, tested and approved for use in gas UK and Overseas distribution industry, working in the harsh, grit blasting environment of pressurised gas mains, **SynthoCam™** has a proven track record of saving time, effort and money in managing, maintaining, replacing or constructing a gas distribution network.

Live Access

SynthoCam™ combines the latest in-pipe CCTV technology with the best live access systems, allowing a choice in access methodology depending on the pipe configuration and operational requirements. With the latest in patented access technology **SynthoCam™** is the Live Access CCTV system for gas distribution pipes.

Approved for Use

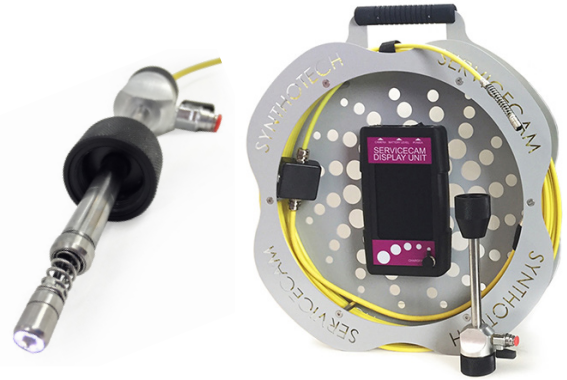
SynthoCam™ prides itself on holding product approval for use on all UK Gas Distribution Networks (GDN) at pressures up to 2bar, and on global gas distribution networks up to 4bar.



Service Pipes

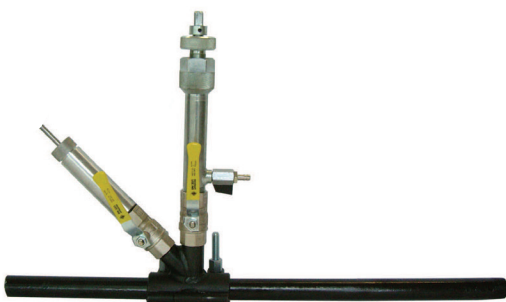
SynthoCam™ has a wide range of Service pipe CCTV systems, for pipe diameters from ½" metallic or 16mm Polyethylene (PE) that operate at pressures up to 4 bar.

ServiceCam™ is a live access CCTV system for surveying PE and metallic Service pipes up to 40mm / 2" diameter. This system operates at pressures of up to 2bar and gains access to the live service pipes through valves, Emergency Control Valves (ECV), House Entry Tees, Horizontal Insertion and wrap around clamps.



SynthoScope™ is a live access directional (navigable) CCTV system for surveying PE and metallic Services up to 40mm / 2". It can be used up to 2bar with access through valves, ECV's, House Entry Tees, Horizontal Insertion and wrap around clamps.

SynthoCam S195™ is a S195 (19.5mm) Camera System on a 4.5mm Cobra (insertion coiler) for use on 2" to 3" metallic Mains and Services through a ¾" BSP hole, and 55mm to 63mm PE Pipe through a 63mm Top Tee.

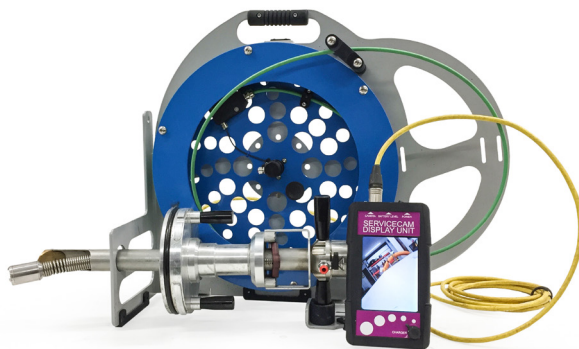


The **ServiceCam™** and **SynthoScope™** can access Service pipes up to 2bar in pressure through ECVs, Full Bore Valves, House Entry Tees, Service Tees, Wrap Around Clamps, Live Service Isolator Clamps, Horizontal Insertion and 32 and 63mm Top Tees.

LookSee Mains Cameras

SynthoCam™ has a range of 'LookSee', entry level CCTV systems, operating at pressures up to 2bar, with a wide range of options for pipe diameters from 3" metallic or 50mm PE.

SynthoSeek™ is a fully portable, compact live gas camera for 'find and fix' leakage and repair activities for 4" to 8" diameter metallic mains. Designed as a cost effective 'LookSee' system the **SynthoSeek™** is lightweight and easy to use. The system uses a S301 (30mm) camera with a 6mm Cobra for access through a Vertical Insertion Horn.



SynthoCam S195™ is a S195 (19.5mm) Camera System on a 4.5mm Cobra for use in 2" and 3" metallic Mains and Services with a required access hole of $\frac{3}{4}$ " BSP, and 50mm to 63mm PE Pipe through a 63mm Top Tee.

SynthoCam S3-50™ / S3-75™ / S3-100™. These entry level systems provide variable insertion distances (up to 50m, 75m and 100m in either direction from one access point) using a S301 (30mm) camera, a fixed angled insertion horn and a Mini-SCU (visual display unit).



The **SynthoSeek™**, **SynthoCam S195™** and **SynthoCam S3-50™ / S3-75™ / S3-100™** operate at pressures of up to 2bar gas. The **SynthoSeek™** comes with an integrated vertical access system for use with a WASK base. The **SynthoCam S195™** works with a Vertical Angled Insertion Horn for vertical insertion into a 3" main. The **SynthoCam S3-50™ / S3-75™ / S3-100™** can use either a Vertical or a Vertical Angled Insertion Horn.

Survey Metallic Mains Cameras

SynthoCam 3™ is a modular live access camera system for use on Metallic and PE gas networks. The system has a range of visual display screens, Cobras (insertion coils), cameras and access systems that will create the system that is required.

The range of **SynthoCam 3™** kits include;

SynthoCam S3-50™ / S3-75™ / S3-100™.

These are entry level systems that provide variable insertion distances (up to 50m, 75m and 100m in either direction from one access point) uses a S301 (30mm) diameter camera, a fixed angled insertion horn and a Mini-SCU (visual display unit). The systems are modular and can be up-sized with additional insertion horns, and cameras as required.



SynthoCam 3™ Metallic is our standard survey system. A 105m Cobra with a **SynthoCam™** Control Unit (SCU) incorporating a recordable visual display monitor, and a choice of cameras: S240 (24mm), S301 (30mm), S340 (34mm self-levelling) and S490 (49mm self-levelling). This kit also uses a Vertical Angled Insertion Horn which maximises the camera size used in order to achieve optimum vision and quality. NB. Camera size is dependent upon maximum permitted size of access hole.

SynthoCam 3™ Metallic has a maximum insertion distance of up to 200m from one access point (excavation) and provides full circumferential vision in pipe diameters up to 8”.

There are several different types of Cobras that can be used with the **SynthoCam 3™ Metallic**. There is either a 7.4mm or a 9mm diameter, in either standard yellow (fibreglass) or Ultralife green (flexible basalt).



Survey Polyethylene Mains Cameras

SynthoCam 3™ PE The system uses either a low pressure vertical insertion system, or our unique pressure balanced vertical insertion tube for use at 2bar or 4bar. It can be used with a wide range of our visual display monitors, including recordable options.

For use in 63mm to 180mm diameter pipes the S240 (24mm) camera is connected to either the 4.5mm or 6mm diameter Cobra. Insertion is achieved from a vertical insertion assembly connected onto a 63mm High Flow Top Tee, this will enable an insertion distance of up to 80m in each direction.



For use in 90mm to 315mm diameter pipes the S240 (24mm) or S301 (30mm) camera is connected to either a 6mm or 7.4mm diameter Cobra. Insertion is achieved from a vertical insertion assembly connected onto a 63mm High Flow Top Tee, this will enable an insertion distance of up to 80m in each direction.

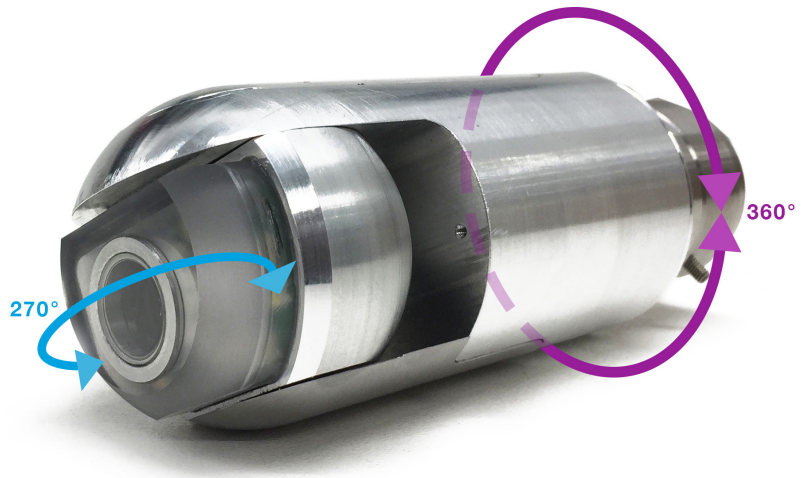
Line Tracing Anode



Pan and Tilt Camera

SynthoCam Titan™ (S500) is **Synthotech's** latest Pan and Tilt Camera system. The camera is a non-glass domed unit which has been designed for insertion in 8" to 24" live gas mains through a 2" BSP drilling.

The camera has been designed for use at 2bar through an existing 2" BSP drilling. The camera rotates back on itself during insertion to protect the lens. The camera can Pan 360° and Tilt with a visible 270°.



The camera is made from lightweight but robust aluminium, with a fully enclosed polycarbonate case which maximises the super bright white LED lights that optimise vision in the pipe.

The **SynthoCam Titan™** can be used with a 9mm Cobra for 8" to 12" metallic diameter mains, and with a 15mm Cobra for use on 12" to 24" metallic diameter mains.

The **SynthoCam Titan™** can be used in larger diameter mains, but this will reduce the insertion distance.

The **SynthoCam Titan™** can be used with a 9mm Cobra for PE pipes over 200mm diameter, and vertically launched through a PE purge saddle with either a WASK or ALH Base unit. The **SynthoCam Titan™** can be inserted up to 70metres in either direction.

The **SynthoCam Titan™** is unique and specifically designed to be launched through a 2" BSP hole that eliminates the requirement of non-routine operations.



Robotic Crawlers

SynthoTrax™ is our unique robotic crawler designed to be inserted vertically through a 161.5mm hole into larger diameter mains, approved for use up to 2bar operating pressure.

SynthoTrax™ will survey up to 400meters from a single excavation (200m in either direction) and survey PE mains up to 630mm diameter and metallic mains up to 48" diameter.

SynthoTrax™ is compatible with an ALH System 3 valve, and all AVK/Donkin (or similar) large diameter valves.

SynthoTrax™ is compatible with full encirclement clamps for vertical insertion into mains less than 24" diameter. NB. Minimum diameter for vertical launch is 14".

SynthoTrax™ is compatible with ALH Systems' Bond and Bolt system for keyhole access.

The **SynthoTrax™** system is a modular platform which can be adapted for many uses including **Synthotech's** specialist scanning system the **SynthoTrax Profiler™**. The multi-purpose platform is currently being developed to incorporate a number of systems including a gas joint maintenance system with Northern Gas Networks, a leak detection system, and a Water Extraction system.

SynthoTrax™ was the winner of the Gas Industry Innovation of the Year in 2012.



Power Systems

SynthoCam™ systems can be powered in a number of different ways. Our Hand held systems are powered from a 5 hour rechargeable battery. These can be charged rapidly from a 12 Volt car charger between jobs, or overnight from a traditional 3-pin 230 Volt supply. Our main survey units are all interchangeable between 110 Volt and 230 Volt, being able to run from a site transformer or a traditional 3-pin 230 Volt supply.

Shortly available with **SynthoCam 3.5™** will be the option to have a SCU with an integrated battery system. Using the trusted Tracer high performance battery system for a 3 to 5-year operational life.

As part of the **SynthoCam 3.5™** upgrade the SCU's have been made compatible with portable solar panels that can trickle charge the new battery systems, even on an overcast day. This means that the battery systems can be charged wherever they are, meaning that the system is truly portable and everlasting. **Synthotech** are committed to reducing the environmental impact of all its products and processes.





SYNTHOTECH
innovative engineering



SDU



HDU



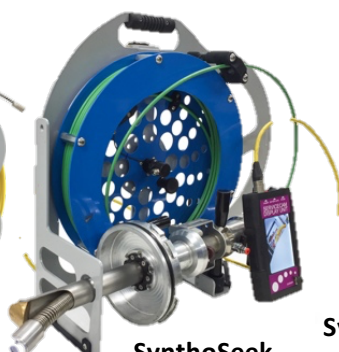
Mini-SCU



SynthoScope



ServiceCam



SynthoSeek
Green Ultralife



System 1 Cobra 19.5
4.5mm
Green Ultralife



System 1 Cobra
4.5mm
Green Ultralife



System 1 Cobra
4.5mm
Yellow Standard



S095
9.5mm



ECV
Access

House
Entry Tee
(HET)

Horizontal
Insertion

32mm Top
Tee

Live Service
Isolator

Low
Pressure
Vertical
Insertion
WASK Base
30mm
Camera
1 1/4" BSP
Tapping in
4"/6"/8"



Medium Pressure
Vertical PE Insertion
≤2Bar
63mm PE Top Tee
Radius / Kimplas / GPS



S195
19.5mm



3" Launch
Foot



S240
24mm

S301
30mm

Low Pressure Vertical
PE Insertion
≤75mbar
63mm PE Top Tee
Radius / Kimplas / GPS



WASK Base
≤ 75mbar



ALH Base
≤ 2Bar

Angled Insertion
ALH or WASK or Pipetech Base
1 " BSP Tapping in 4"
1 1/2" BSP Tapping in 6"
2" BSP Tapping in 8"



SCU-2



ToughPAD

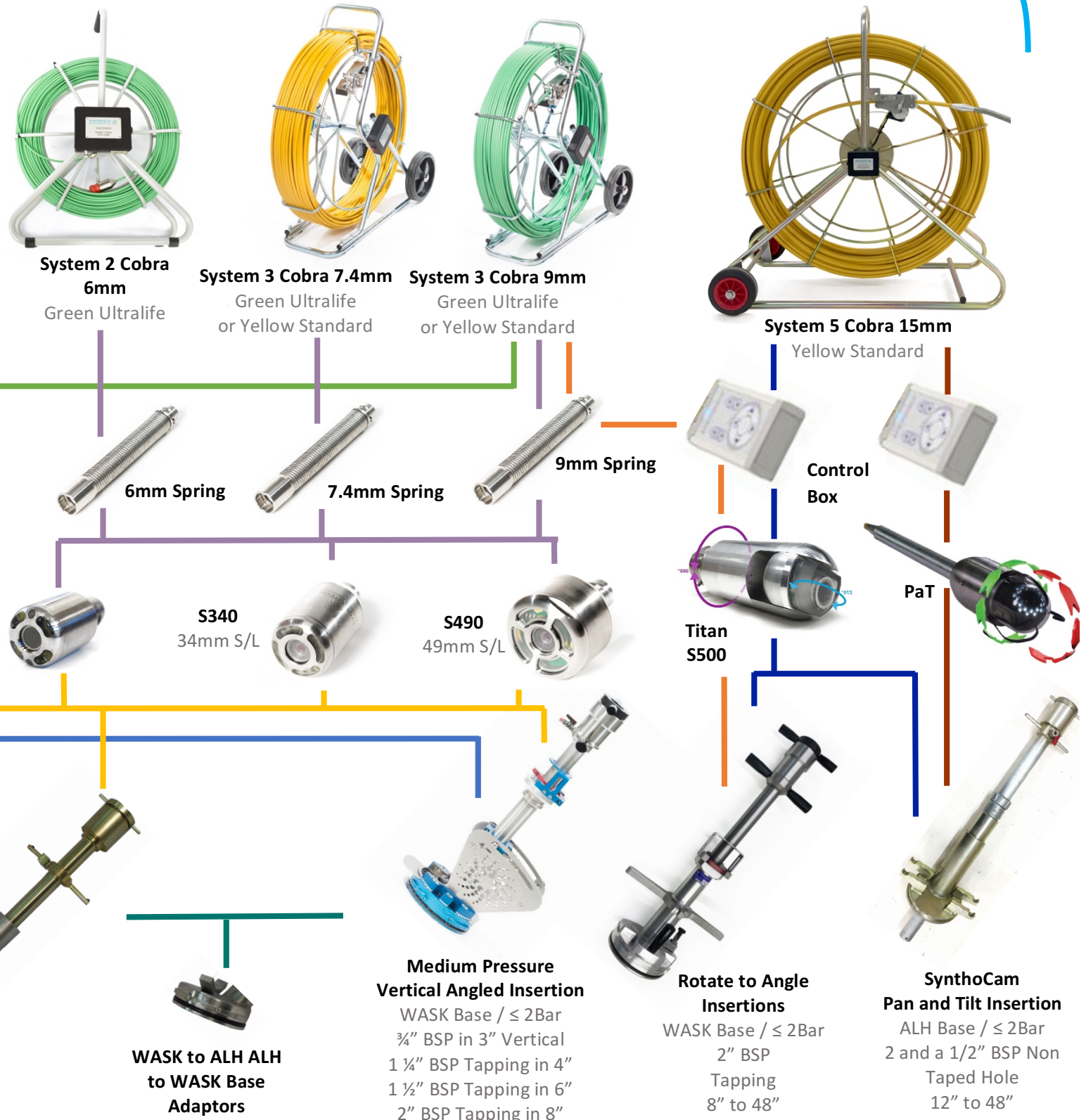
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SYNTHOTECH CAMERA SYSTEM

	SynthoScope	ServiceCam	WExTech Services	SynthoCam S195	WExTech Mains
3/4"	 8m	 20m	 20m		
1"	 8m	 20m	 20m		
2"	 8m	 20m	 20m		
3"					 40m

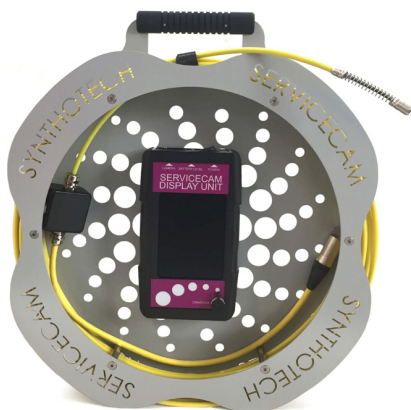


SynthoScope

WExTech for Services



4"	 50m
6"	 50m
8"	 50m



ServiceCam



SynthoSeek



WExTech for Mains - V1

KEY



Vision of full circumference with excellent light levels.



Vision of full circumference with lower light levels.



Partial vision with restricted light levels.



Vision of full circumference with directional light levels.

SYSTEMS FOR METALLIC GAS PIPES

SynthoCam S3-50 / S3-75 / S3-100	SynthoSeek	SynthoCam 3	TITAN (Pan and Tilt)	SynthoTrax TITAN
 $1\frac{1}{4}"$  50m / 75m	 $1\frac{1}{4}"$  28m	 $1\frac{1}{4}"$  100m		
 $1\frac{1}{4}"$  45m / 65m	 $1\frac{1}{4}"$  21m	 $1\frac{1}{4}"$  70m		
 $1\frac{1}{2}"$  40m / 55m	 $1\frac{1}{2}"$  15m	 2"  55m	 2"  50m	
		10"  2"  50m	 2"  80m	
			12"  2"  80m	 END  200m
			18"  2"  50m	 6"  200m
			24"  2"  30m	 6"  200m
				30"  6"  200m
				36"  6"  200m
				42"  6"  200m
				48"  6"  200m



Part of the SynthoCam 3
range of systems



Valve Entry no drilling
required,
valve diameter.



Mains access via
drilling system, drill
diameter.



End
launch
system.



Maximum push /
survey distance in a
single direction.

SYNTHOTECH CAMERA S

	ServiceCam			WExTech for services			SynthoCam S195
17.5 mm							
20 mm							
25 mm							
32 mm							

WExTech for Services



WExTech for
Mains - V1



ServiceCa



TITAN
Camera

55 mm			
63 mm			
75 mm			

Part of the SynthoCam 3
range of systems



SynthoC

KEY



Vision of full
circumference with
excellent light levels.



Vision of full
circumference with
lower light levels.



Partial vision with
restricted light
levels.



Vision of full
circumference with
directional light level

SYSTEMS FOR PE GAS PIPES

SynthoCam 3 up to 4 bar



63mm



63mm



63mm



63mm



63mm



63mm



250mm

WExTech for Mains



63mm



63mm



63mm



63mm

TITAN (Pan and Tilt) Subject to approval



PS 50mm



PS 50mm



PS 50mm



PS 50mm

SynthoTrax



S 250mm



S 250mm



S 250mm



S 250mm

355
mm

630
mm

850
mm

SynthoTrax TITAN



am S195



Valve Entry no drilling required, valve diameter.



Mains access via
TT-Top Tee/ PS - Purge Saddle/
S- Saddle and size.



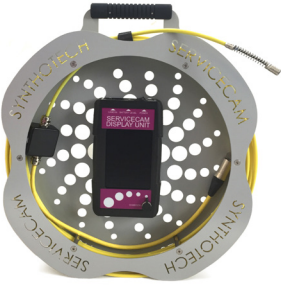


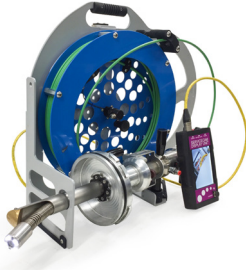

Maximum push / survey distance in a single direction.






Camera Specification

Camera Size	9.5mm	19.5mm	24mm
			
Brand	S095	S195	S240
Camera Type	Fixed	Fixed	Fixed
Weight	500g	120g	155g
Camera Dimensions	-	Ø19.5x115	Ø24x145
Camera & Reel Dims	450x406x65mm	550x400x190mm	-
Power Usage	9.6W	2.4W	2.4W
IP Rating	IP68	IP68	IP68
Focal Range	5 to ∞	8 to ∞	8 to ∞
Lighting Type	LED	LED	LED
Max LUX Level	500	3000	9,000
Active Pixels	640X480	648x488	728x488
Horizontal Resolution	360TVL	480TVL	480TVL




Camera Size	30mm	34mm	49mm	Titan
				
Brand	S301	S340	S490	S500
Camera Type	Fixed	Self Levelling	Self Levelling	Pan and Tilt
Weight	115g	180g	308g	422g
Camera Dimensions	Ø30x65	Ø34x65	Ø49x65	Ø46x138
Camera & Reel Dims	-	-	-	-
Power Usage	2.4W	2.4W	2.4W	6W
IP Rating	IP68	IP68	IP68	IP68
Focal Range	50 to ∞	50 to ∞	50 to ∞	50 to ∞
Lighting Type	LED	LED	LED	LED
Max LUX Level	30,000	30,000	30,000	40,000
Active Pixels	728x488	728x488	728x488	976x496
Horizontal Resolution	480TVL	480TVL	480TVL	710TVL


Insertion Cobra Specification

	ServiceCam	System 1 Cobra 4.5mm	System 1 Cobra 4.5mm	SynthoSeek	System 2 Cobra 6mm
Description					
Dims	450x406x65mm	550x400 x190mm	550x400 x190mm	300x700 x500mm	820 x750 x280mm
KG	1.75kg	6.2kg	6.2kg	10kg	8kg
Type	Yellow Standard	Yellow Standard	Green Ultralife	Green Ultralife	Green Ultralife
Material	Nylon	PU Fibreglass Fill	PU Basalt Fill	PU Basalt Fill	PU Basalt Fill
Rod	6mm Ø x 20m	4.5mm Ø x 80m	4.5mm Ø x 80m	6mm Ø x 30m	6mm Ø x 80m





	System 3 Cobra 7.4mm	System 3 Cobra 7.4mm	System 3 Cobra 9mm	System 3 Cobra 9mm	System 5 Cobra 15mm
Description					
Dims	820 x 750 x 280mm	820 x 750 x 280mm	820 x 750 x 280mm	820 x 750 x 280mm	1200 x 1100 x 510mm
KG	20kg	20kg	24kg	24kg	51kg
Type	Yellow Standard	Green Ultralife	Yellow Standard	Green Ultralife	Yellow Standard
Material	PU Fibreglass Fill	PU Basalt Fill	PU Fibreglass Fill	PU Basalt Fill	PU Fibreglass Fill
Rod	7.4mm Ø x 50m / 80m	7.4mm Ø x 80m	9mm Ø x 50m / 75m / 105m	9mm Ø x 105m	15mm Ø x 100m







Visual Display Screens

Description	SDU	HDU	ToughPAD
			
Dimensions	200x120x51mm	240x288x70mm	270x188x19mm
Weight	0.8kg	2.6kg	1.1kg
Display	5" TFT	8" TFT	10.1" IPSa
Storage	None	None	Internal 4GB
Environmental	IP40	IP54	IP65
Temperature Storage	-25°C to 55°C	-25°C to 55°C	-
Temperature Operating	-5°C to 40°C	-5°C to 40°C	-
Temperature Charging	0°C to 40°C	0°C to 45°C	-
Fast Charging	10°C to 45°C	10°C to 45°C	-

Description	Mini-SCU	SCU-2
		
Dimensions	340x310x120mm	400x350x180mm
Weight	7.6kg	12kg
Display	12.1" Optically Bonded LED Back-lit LCD Screen	12.1" Optically Bonded LED Back-lit LCD Screen
Storage	None	SD Card 32GB
Environmental	IP54 when operating	IP54 when operating
Temperature Storage	-25°C to 55°C	-25°C to 55°C
Temperature Operating	-5°C to 40°C	-5°C to 40°C

Insertion Systems

Discription	Medium Pressure Angled Insertion	Medium Pressure Vertical Angled Insertion	Low Pressure Vertical Insertion	Medium Pressure Vertical Insertion
				
Dims	450 x 350 x 170mm	670 x 270 x 170mm	550 x 180 x 170mm	1330 x 170 x 80mm
Weight	3.4kg	7kg	2.5kg	4.5kg
Pressure	2bar	2bar	75mbar	2bar
Connections	WASK base PipeTech Base	WASK base PipeTech Base	WASK base PipeTech Base	WASK base PipeTech Base
Connection Options	ALH System 1 Base	ALH System 1 Base	ALH System 1 Base	ALH System 1 Base

Discription	Low Pressure Vertical PE Insertion	Medium Pressure Vertical PE Insertion	SynthoCam Domed Pan & Tilt Insertion	SynthoCam Titan Pan and Tilt Insertion	Low Pressure Angled Insertion	WASK Keyhole System
						
Dims	1230 x 170 x 80mm	1330 x 170 x 80mm	807 x 180 x 260mm	630 x 410 x 170mm	450 x 350 x 170mm	168 x 194 x 2200mm
Weight	5kg	4.5kg	12.3kg	4kg	3.3kg	5.5kg
Pressure	75mbar	2bar	2bar	2bar	75mbar	2bar
Connections	63mm Radius System Top Tee	63mm Radius System Top Tee	ALH System 1 Base	WASK Base	WASK base PipeTech Base	WASK Keyhole System
Connection Options	63mm GPS Top Tee / 63mm Kimplas Top Tee/ 63mm Nupi Geco Top Tee	63mm GPS Top Tee/ 63mm Kimplas Top Tee/ 63mm Nupi Geco Top Tee	ALH Beam Down Key-hole System	ALH System 1 Base	ALH System 1 Base	WASK core and vac drilling tube

Accessories

Description	Insertion Spring 6mm	Insertion Spring 7.4mm	Insertion Spring 9mm	Insertion Spring S3 to S2	Sonde 512Hz
					
Dimensions	22Ø x 180mm	22Ø x 180mm	22Ø x 180mm	22Ø x 180mm	22Ø x 180mm
Weight	0.3kg	0.3kg	0.3kg	0.3kg	0.3kg

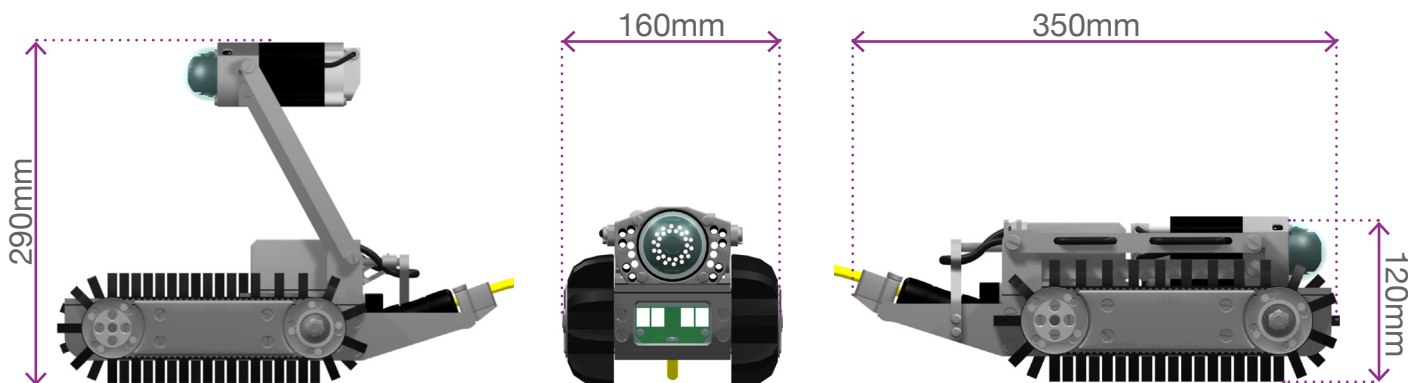
Description	Cable Saver	¾" Foot Adaptor	Consumable Pack 4.5/6mm	Consumable Pack 7.4/9mm	Consumable Pack 15mm
					
Dimensions	40Ø x 50mm	40Ø x 110mm	65Ø x 360mm	65Ø x 360mm	30x180x70mm
Weight	0.1kg	0.1kg	0.2kg	0.2kg	0.2kg
Type	S3	S3	S3	S3	S3

Description	Maintenance Pack	Marker Tape (Red/Black)	Silicone Grease M494
			
Dimensions	150x130x60mm	70Ø x 20mm	40x110x60mm
Weight	0.1kg	0.1kg	0.1kg
Type	SynthoCam	SynthoCam	SynthoCam

Description	5m Fly Lead (SCU Only)	2.5m Extension Lead	Kettle Lead 110v	Kettle Lead 230v
				
Dimensions	280x200x40mm	280x200x40mm	190Ø x 70mm	190Ø x 70mm
Weight	0.2kg	0.1kg	0.1kg	0.1kg
Display	S3	S3	S3	S3

SynthoTrax™ Specification

Description	Dimensions	Weight	Voltage	Pressure	Operating Temp
SynthoTrax Vision	160x350 x120mm	14.5kgs	48V	2bar	-5°C to 40°C



Description	Dimensions	Weight	Voltage	Screen	TVL
SynthoTrax Control System	395x427 x252mm	11.3kgs	110-240V	12.1" DLV	710TVL

Description	Dimensions	Weight	Restraint	Length	Cable Mgmt
SynthoTrax Cable Coiler	677 x 377 x717mm	36kgs	Kevlar	200m	Manual

Description	Dimensions	Weight	Material	Vision	Pressure
SynthoTrax Launch System	2808 x 285 x 392mm	41kgs fully assembled	Aluminium	Launch Tube	2bar



SynthoTrax Control System



SynthoTrax Cobra



Using SynthoTrax reduces the size of the excavation by up to 97% compared with alternative methods

Water Extraction Technology

Water Extraction Technology, WExTech™, by **Synthotech**, is a range of systems designed to locate water in live gas pipes, remove the water, and recycle the gas back into the network. There is a **WExTech™** system for every type and size of pipe:

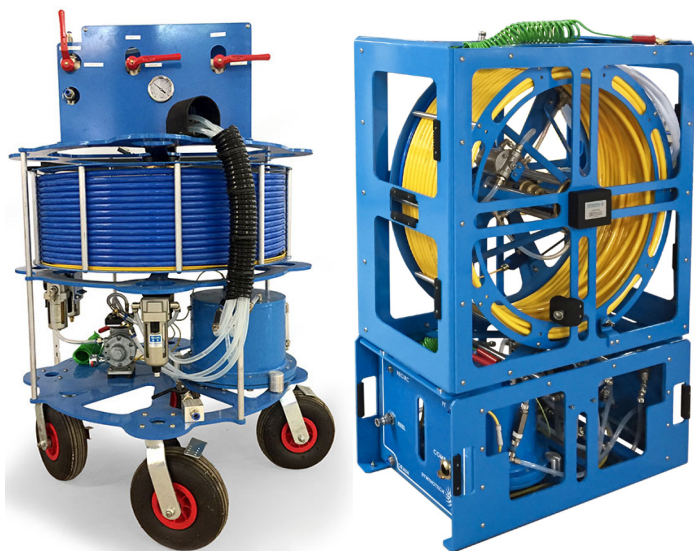
WExTech™ Services;

Designed for removing both pools of water and water droplets from PE and metallic services. Designed for use in 17.5mm to 32mm PE and for ¾" to 2" metallic pipe. The system uses a **ServiceCam™** to locate the water, then uses either the rechargeable battery powered pump or the hand pump to remove the water. The end of the system has a microfibre cloth to collect the droplets. The gas is then pumped back into the main all under live gas conditions.



WExTech™ Mains Tier One

Designed for 90mm to 250mm PE and 4" to 10" metallic, there are two versions of the **WExTech™ Mains** units. The Trailer Unit which is on a self-contained round carousel with rough surface wheels. The alternative is Van Unit which is designed to fit between the racking on a standard van and can be split into two parts which can be maneuvered with a two man lift. Both systems work with the standard SynthoCam 3™ systems, using S240 (24mm) or S301 (30mm) cameras to locate the water, use a pump to remove it and then subsequently recycling the gas back into the main.



WExTech™ Mains Tier Two;

The Tier Two System is based on the Tier One System, however designed for 12" (300mm) to 18" (450mm) mains.

SynthoTRAX™ WExTech™ Mains Tier Three;

For Tier Three pipe, a robotic **SynthoTRAX™** unit is connected to the **WExTech™** units to remove water from up to 400m from a single excavation point.

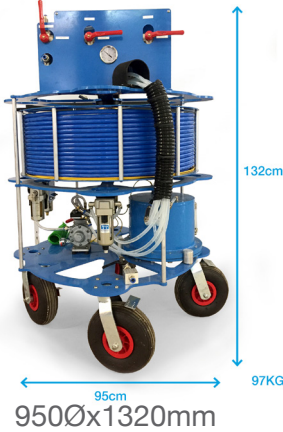
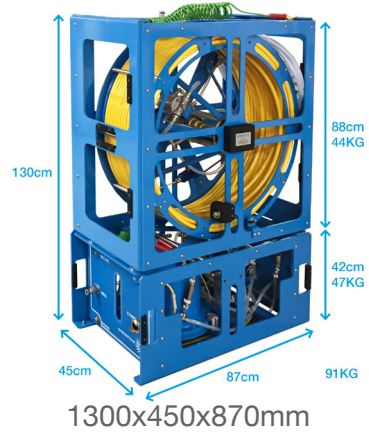
WExTech™ Bowser;

Combining the power of a traditional bowser unit with the technology of a **WExTech™** system the **WExTech™ Bowser** provides a total solution to water extraction across the whole Gas Distribution Network.

WExTech™ Awards;

2017 - UK Energy Innovation Awards – Winner - Customer Quality and Reliability of Gas Supply. 2016 – Gas Industry Awards – Winner – Innovation of the Year Award.

Water Extraction Specification

Description	WExTech Mains Trailer	WExTech Mains Van
Dimensions	 <p>95cm 132cm 97KG 950x1320mm</p>	 <p>130cm 45cm 87cm 91KG 88cm 44KG 42cm 47KG 1300x450x870mm</p>
Weight	97kg	91kg
PE Pipe	90 to 250mm	90 to 250mm
Metallic Pipe	4" to 10"	4" to 10"
Push	50m	50m
Suction	20l/min	20l/min

Unit	WExTech Services - 1.0	WExTech Services - 2.0
		
Weight of System	20.9kg	11.5kg
Camera Type / Dims	Fixed / 9.5mm w/o foam	Fixed / 9.5mm w/o foam
Camera & Reel Dims	455 x 405 x 66mm	455 x 405 x 66mm
Suction Unit Dims	470x340x170mm + 640x170x170mm	650 x 310 x 210mm
Suction Rate/ Capacity	0.115L/min / 6 Litres	0.115L/min / 6 litres
Foam Sizes	14mm(Serviflex) 19mm(25mm PE) 25mm (32mm PE)	14mm(Serviflex) 19mm(25mm PE) 25mm (32mm PE)
Power Usage	12W	12W
IP Rating	IP68	IP68
Focal Range	5 to ∞	5 to ∞
Lighting Type	LED	LED
LUX	5000 (max)	5000 (max)
Active Pixels	640 x 480 pixels	640 x 480 pixels
Horizontal	480TVL	480TVL
Pressure	75mbar	75mbar
Insertion	20m	20m

Gas Industry Standard

SynthoCam™, **ServiceCam™**, **SynthoTrax™** and **WExTech™** are all compliant with the appropriate sections of the following gas industry standards for use on live and dead gas services and mains.

- D7 – Work Procedure, The Internal Inspection of Gas Mains Using Optical Inspection Systems including Closed Circuit Television (CCTV) Systems.
- GIS/TE/E1.7:2006 – Tooling for the removal of caps and plugs from live low pressure services
- GIS/TE/E.1.8:2006 – Access tool for live entry into a low pressure polyethylene service
- IGEM/SR/28 – Trenchless Techniques
- IGEM/SR/29 – Dealing with Escapes
- IGEM/SR/22 – Purging operations for fuel gasses in transmission, distribution and storage
- IGEM/TD/3 – Distribution Mains (<16Bar)
- IGEM/TD/4 – Gas Services (<16Bar)
- SL/TS/02/Vision Systems
- SL/TS/03/Live Access Systems
- SL/TS/04/Insertion Coilers
- SL/TS/05/Visual Display Systems

Synthotech hold approvals for **SynthoCam™ with all the UK Gas Distribution Networks.**



SGN
Your gas. Our network.

Cadent
Your Gas Network



nationalgrid

Equipment operating in the Utilities sectors are often subject to hostile environments, extreme weather and a tough operating life. **SynthoCARE™** supports the equipment through its operational life ensuring that it continues to operate in a safe, secure and efficient manner maximising its return on investment and minimising its operational cost.

+44 (0) 1423 816079 **SynthoCARE** (Direct Dial)

support@synthotech.co.uk

Synthotech.com/SynthoCARE

All Synthotech products are covered under **SynthoCARE™**.

All **Synthotech** products come with a standard 12 month manufacturer's warranty, with certain **SynthoCam™** products covered under UK Gas Distribution Contracts under 24 or 36 month extended warranties.

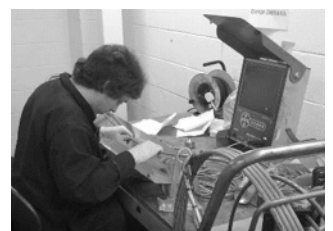
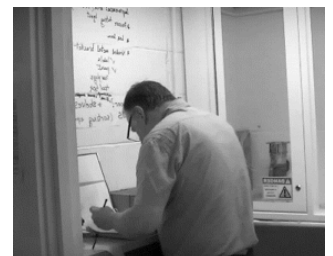
Most **SynthoCam™** survey systems are subject to free next working day loan equipment (terms and conditions apply),

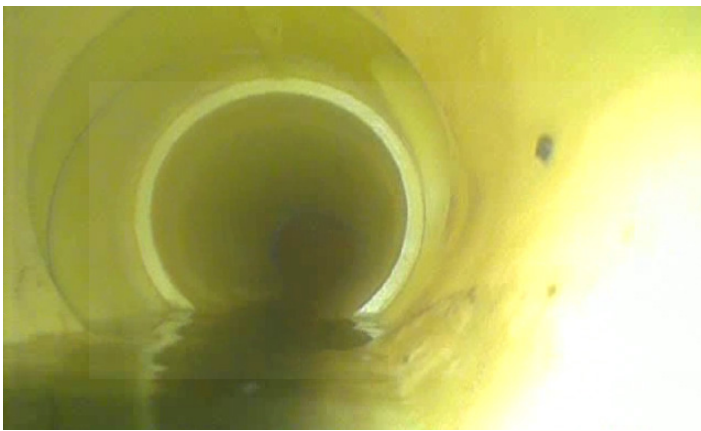
SynthoHire is available on a wide range of existing **Synthotech** equipment.

SynthoCARE™ has a dedicated customer service desk open Monday to Friday with a range of supportive Mechanical, Electronic and Electrical Engineers on hand to refurbish, pressure test, portable appliance test and service the entire **Synthotech** product range.

Synthotech's Technical Support Engineers offer a wide range of training on our products. Our success can be seen through the implementation and use of our equipment. And the success of use is down to the quality of the training from our experts.

***“The success of our training,
is when our customers become our experts”***





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