SPX®

P350 flexitrax™ system

THE VERSATILE AND TRULY PORTABLE CRAWLER INSPECTION SYSTEM

›Pearpoint®

The P350 flexitrax™ – the versatile, portable crawler system for the pipeline inspection professional

Many motorized inspection systems are complex and bulky. They can be difficult to transport and install, prone to weather damage and are complicated to operate.

The P350 flexitrax system offers inspection professionals a comprehensive and portable crawler system. This advanced and affordable system features the simplicity and transportability of a pushrod system while delivering the functionality and performance associated with complex and expensive crawler systems.

MODULAR & FLEXIBLE

The P350 is a truly modular system, designed to meet the tough requirements of inspection environments.

Tailor the system to meet your requirements. Choose between a manual cable drum or an advanced, compact, self–contained powered drum with up to 1000' (305m) of cable.

Choose from three interchangeable cameras and two powerful, compact, crawlers that are designed to withstand the most challenging sub-surface conditions.

A wide choice of different wheels, elevators and tires optimizes the downhole equipment to suit the pipe you are surveying. With small wheels fitted the P354 crawler is compact enough to deploy into 4" (100mm) pipes* and the P356 into 6" (150mm) pipes.*

FULLY INTEGRATED PUSHROD CONNECTIVITY

P340 flexiprobe pushrod reels and cameras can be connected directly to the flexitrax system, allowing you to switch from crawler to pushrod operation at the touch of a button on the P350 command module – no need to change connections or provide an extra power source for the pushrod.

The P340 flexiprobe range offers a choice of 2 rugged cameras (1"/25mm and 2"/50mm) and 3 different reel sizes (100'/30m to 500'/150m) with different rod flexibilities and sondes to best suit your application.

The P350+ command module, with built-in Li-Ion batteries for pushrod systems, can be mounted directly on top of the flexiprobe pushrod reel – easy to transport and no need to carry a separate mains lead.

OUTSTANDING PICTURE QUALITY

The P350 flexitrax system offers a choice of high-resolution cameras (Forward View, Pan & Tilt or Pan & Tilt with 10x Optical Zoom; each with ultra-bright, white LED lighting for use across different pipe materials.

A powerful digital video platform delivers a clear picture and a long, maintenance-free life. The digital video is displayed on the P350 flexitrax command module's ultra-bright, 200mm (8") industrial grade TFT screen.

The command module allows you to zoom and rotate photos and live or recorded digital video in real-time. The command module also provides Mimic™ display: an intuitive way of controlling pan and tilt.

Combined, these features provide outstanding video picture quality and make it quick and easy to correctly identify problems even in the toughest conditions.

*Minimum specified diameter must be maintained along the whole length of the survey.

Command Module

Splashproof keyboard
for text entry

Pendant controller

Manual drum with portable PSU

Manual drum

P356 crawler

(with large wheels,
elevator, lighthead
and zoom camera)

Power Drum
with integral PSU

< Observation (New) >

1:Video	S_F_001.MP4
2:Video time	1480
3:Photo	S_F_002.JPG
4:Distance	75.0m
5:Cont. defect	S01
6:Code	FC
» 7:Joint	J
8:Clock at/from	6
9:Clock to	(empty)
10:Remarks	WATER LEAKING...
11:Grade	5

Pushrod connectivity

Switch from crawler to pushrod operation directly
from the Command Module with no need to move
cables.

P350+ Command Module with internal
pushrod batteries

Removes the need for a power connection when using
only a pushrod.

On-site reporting

Customizable built-in reporting system, creates
and exports detailed MSCC5 compliant drain and
inspection chamber survey XML reports.

EASY TO TRANSPORT AND USE

The P350 flexitrax system is small enough to fit in the trunk of your car. The system can be van or truck mounted and wheeled on-site using the ergonomic barrow design, allowing you to reach conduits beyond the range of your vehicle. Once on site, the system is quick and easy to set-up and deploy.

The rugged command module can be mounted directly on the drum or pushrod reel, or fitted where convenient at a distance of up to 150' (50m) from the or fitted where convenient.

The system is easy to use, thanks to its intuitive user interface and simple, one-touch control over video and photo capturing. The integral keypad and keyboard gives you direct access to advanced digital features and lets you drive any drum, crawler and camera combination.
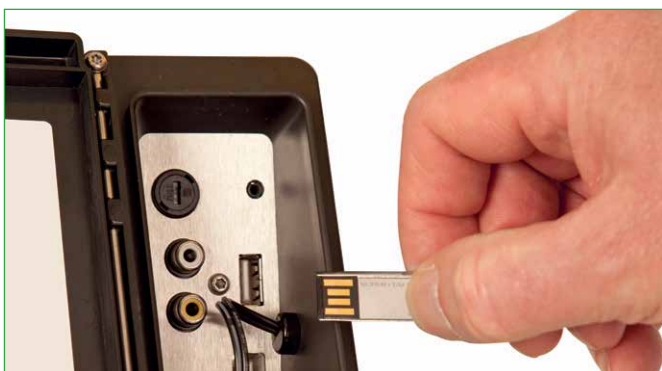
RELIABILITY WHERE YOU NEED IT

The P350 flexitrax is engineered to operate in a wide range of operating environments.

The tough, light-weight command module, drum and pushrod reels provide a durable buffer between the elements and your survey data, with a weatherproof (IP53) protection rating. The crawlers and cameras can operate fully submersed and are water resistant (IP68) to depths of up to 330' (100m).

Cable connections are made quickly and reliably thanks to quick locking, robust fittings, designed specifically for use in difficult environments.
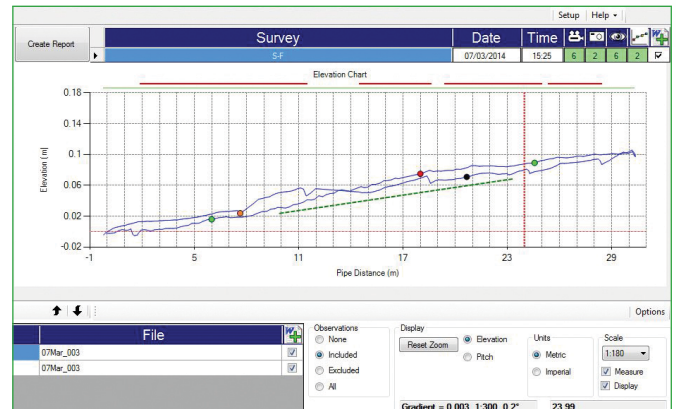
The command module stores survey data directly to solid state USB memory sticks or Compact Flash. Solid-state non-volatile memory means there are no moving parts, so your files are secure and less vulnerable to shock damage and power outages.

The crawlers are constructed from brass and stainless steel and are built with a single or twin 50W motor configuration, powerful enough to move through almost any pipeline system.

ON-SITE REPORTING AND EASY DATA TRANSFER

The P350 command module offers a customizable built-in reporting system, capable of creating and exporting detailed MSCC5 compliant drain or inspection chamber survey reports. The integrated sensitive inclinometer and the multi-frequency sonde allow users to map pipeline topography easily and efficiently.

Use the HTML report creator or XML output capabilities of the command module to document all your work, on site with no need to use a PC or laptop on site.

Use FlexiSight™ Manager to import and manage all your surveys' digital data on a PC or laptop. Data can be retrieved easily using the USB 2.0 connection or by plugging directly into a spare USB port.

Review and edit your work and create customizable MS Word or PDF reports of your surveys, including pipe graphs. Use the optional inclination module to produce inclination measurements of the drain surveyed.

EASY TO SERVICE AND MAINTAIN

The P350 flexitrax system is designed and built for continuous operation and easy maintenance. Re-termination kits are available, making it easy and affordable to replace or repair damaged cables. The powered drum features a removable cable cassette that's quick and easy to replace in the workshop or even in the field.

P350 FLEXITRAX SYSTEM OPTIONS

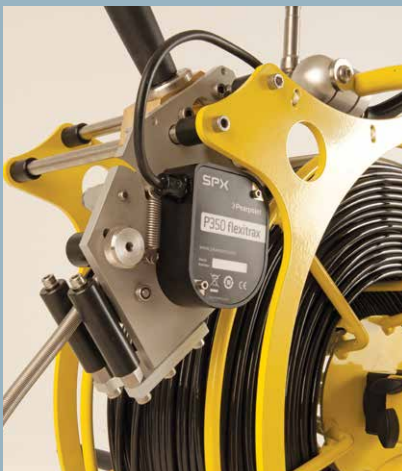| CONTROLLERS	P350 or P350+ (with pushrod batteries) command module		
DRUM	Manual Drum + Portable PSU		Power Drum with Integral PSU
CRAWLERS	P354 Non-Steerable Crawler		P356 Steerable Crawler
CAMERAS	Forward View	Pan & Tilt	Pan & Tilt with Zoom
CABLE LENGTH	330', 550', 660', 820', 1000' / 100m, 150m, 200m, 250m, 305m		
WHEELS	**Small** Rubber (hard and soft) Abrasive	**Medium** Rubber (hard and soft) Abrasive	**Large** Rubber – Pneumatic (Not suitable for P354 Crawler)

ACCESSORIES

WALL-MOUNT	To mount the command module on an adjustable arm to the side of your van
CRAWLER WEIGHT	4.4 lbs / 2 kg weight plate to boost the P354 crawler traction performance
ELEVATOR	Fixed length or adjustable elevators to center the camera position in the pipe
CRAWLER GRAB	Choice of crawler grab tools for P354 and P356 to ensure a safe and quick crawler deployment or retrieval
LIGHTHEAD	850 lm auxiliary lighthead
VAN/TRUCK MOUNTING KIT	To mount the system to your van or truck
PENDANT CONTROLLER	To control the system remotely
CABLE ROLLERS	Uphole or downhole cable rollers to prevent crawler cable damage in use

P340 FLEXIPROBE PUSHROD SYSTEM OPTIONS

REELS	P341 Plumbers	P341 Reel	P342 Reels	P343 Reel
RODS	100' / 30m 200' / 60m	115' / 35m	200' / 60m 400' / 120m	500' / 150m
CAMERAS	P340 1" / 25mm Camera		P340 2" / 50mm Self-leveling Camera	

MODULAR

The P350 flexitrax system is a modular system and all its main components are fully interchangeable.

Tailor the system to suit your business needs:

- Choose between the manual or self-contained powered drum systems,

- Determine the cable length and crawler size to meet your typical pipe requirements,

- Choose a high-resolution (Forward View, Pan & Tilt or Pan & Tilt with 10x Optical Zoom) camera; each with ultra bright, white LED technology,

- Choose from a wide range and size of wheels, tires and accessories to suit any inspection environment,

- Use the P350 system with the comprehensive P340 flexiprobe range of pushrods and cameras.

P350 flexitrax system specifications

- **Environmental*:** IP53 (Surface Equipment);
  IP68 to 330' (100M)/11 bar (Downhole Equipment)
- **Temperature (Storage):** -4 to 176°F (-20 to 80°C)
- **Temperature (Operating):** 14 to 122°F (-10 to 50°C)

*Unless otherwise stated.

P350 AND P350+ COMMAND MODULES	
Power requirements	12-24VDC, 40W
Pushrod Battery (P350+)	Capacity 14.8V, 6.6Ah (98Wh). Run time Up to 1 day's typical usage, 7hrs view only / 4hrs continuous recording*
Display	8" Industrial TFT, SVGA
Storage	High speed Compact Flash Card or USB flash drive
Connectivity	USB, Analog video in/out (PAL/NTSC), Analog audio in/out, Ethernet, Bluetooth®
Environmental	Cover closed: IP55 Cover open: IP53
Dimensions	14" x 14" x 8" / 300 x 360 x 200mm
Weight	P350 command module 12lbs / 5.5kg P350+ command module 13.5lbs / 6.2kg

AUXILIARY LIGHTHEAD	P350-LH-8
Dimension (L x Diameter)	2.5" x 5.4" / 63 x 136mm
Weight	4.0lbs / 1.8kg
Construction	Stainless Steel and Aluminum
LED Luminance	≥ 850lm

PENDANT CONTROLLER	P350-PENDANT
Dimension (L x Diameter)	9.8" x 3.1" x 1.6" / 250 x 80 x 40mm
Weight	1.5lbs / 0.7kg
Construction	Linear Medium Density Polyethylene (LMDPE) and mild steel
Environmental	IP64

DRUMS	P350-DRUM-M	P350-DRUM-P
Dimensions (L x W x H) Drum	17.5" x 10.6" x 22.4" 445 x 270 x 570mm	24.4" x 16" x 27.2" 619 x 405 x 691mm
Dimensions manual power pack	16.5" x 7.7" x 16.5" 418 x 195 x 420mm	Integral
Weight	39.7lbs to 64lbs / 18kg to 37kg depending on cable length	130lbs to 154lbs / 60kg to 75kg depending on cable length
Construction	Powder-coated tubular steel frame with steel and aluminum power pack enclosure. Stainless steel and aluminum manual cable management mechanism	Powder-coated steel chassis with steel and aluminum enclosure. Interchangeable alloy cable drum. Stainless steel and aluminum automatic cable management mechanism
Power	110-230V ±10%, 50-60Hz ±6%, 1.2kVA. Generator (if used) to have inverter-type output	

CRAWLERS	P354	P356
Pipe diameter	4" to 12" / 100mm to 300mm**	6" to 24" / 150mm to 600mm**
Dimensions (L x W x H)	9.8" x 3.2" x 2.7" / 250 x 82 x 69mm	13.6" x 5" x 3.3" / 345 x 128 x 84
Weight	12lbs / 5.4kg	31.5lbs / 14.3kg
Motors	1 x 50W	2 x 50W
Construction	Brass and Stainless Steel	Brass and Stainless Steel
Sonde frequency	512/640/8192/32768 Hz	512/640/8192/32768 Hz
Inclinometer accuracy	± 0.2°	± 0.2°

CAMERAS	P350-CAM-FW	P350-CAM-PT	P350-CAM-PTZ
Dimensions (L x Diameter)	2.4" x 2.7" / 62 x 68mm	5.3" x 2.7" / 134 x 68mm	6.2" x 3.5" / 158 x 90mm
Weight	1.3lbs / 600g	4.0lbs / 1.8kg	6.4lbs / 2.9kg
Construction	Stainless Steel	Stainless Steel and Aluminum	Stainless Steel and Aluminum
Focal Range	10mm to ∞	10mm to ∞	10mm (WIDE) to ∞
Horizontal Resolution	≥ 460TVL	≥ 460TVL	≥460 TVL
Sensitivity	< 1.0 Lux	< 1.0 Lux	1.0 Lux @ f1.8
LED luminance	≥ 120lm	≥ 210lm	≥ 420lm

ELEVATORS	P350-ELV-F (FIXED ELEVATOR)	P350-ELV-A (ADJUSTABLE ELEVATOR)	P350-ELV-LAM (LARGE MANUAL ELEVATOR)
Weight	0.9lbs / 0.4kg	1.5lbs / 0.7kg	9.9lbs / 4.5kg
Construction	Stainless Steel and Aluminum	Stainless Steel	Stainless Steel and Aluminum
Pipe Range (P354)	up to 12" / 300mm	up to 15" / 380mm	Not available
Pipe Range (P356)	up to 15" / 380mm	up to 18" / 458mm	12" to 24" / 300mm to 600mm

*Based on a 2GB Compact Flash card.

**Minimum specified diameter must be maintained along the whole length of the survey.
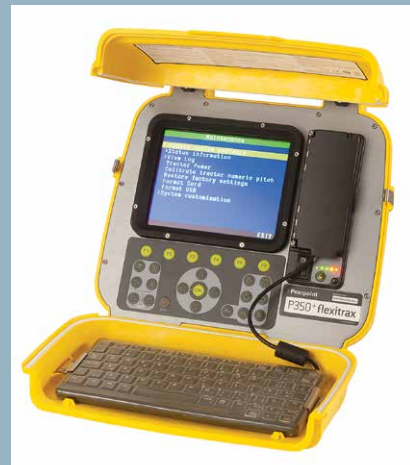
Approvals:

CE: LVD 2006/95/EC, MD 2006/42/EC, EMC 2004/108/EC, RTTE 99/5/EC

FCC: CFR47 Part 15B

Standards: EN 61010-1:2010, IEC61010-1:2010

Other: RoHS (WEEE Cat9 exemption)

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