

Pipeline Inspection Technology



pearpoint

innovative systems  
global solutions

[www.pearpoint.com](http://www.pearpoint.com)

welcome to pearpoint





## innovative systems global solutions

Over the last two decades, Pearpoint has earned a reputation of being the world leader in video pipeline inspection equipment technology. And for good reason—by listening to our customers and understanding their needs, we have created innovative tools that are productive, reliable and provide exceptional value.

Our systems are effectively integrated packages that help our customers make decisions faster and manage their assets more effectively.

Pearpoint is not just a hardware manufacturer, but an inspection solutions provider. Whether you are a municipality, water and sanitary district, private contractor or industrial plant manager, Pearpoint has a video inspection solution for your application and environment.

Whatever your requirements, Pearpoint can provide the quality, safety, versatility and after-sales support you need to get inspection projects done right, on time and on budget.

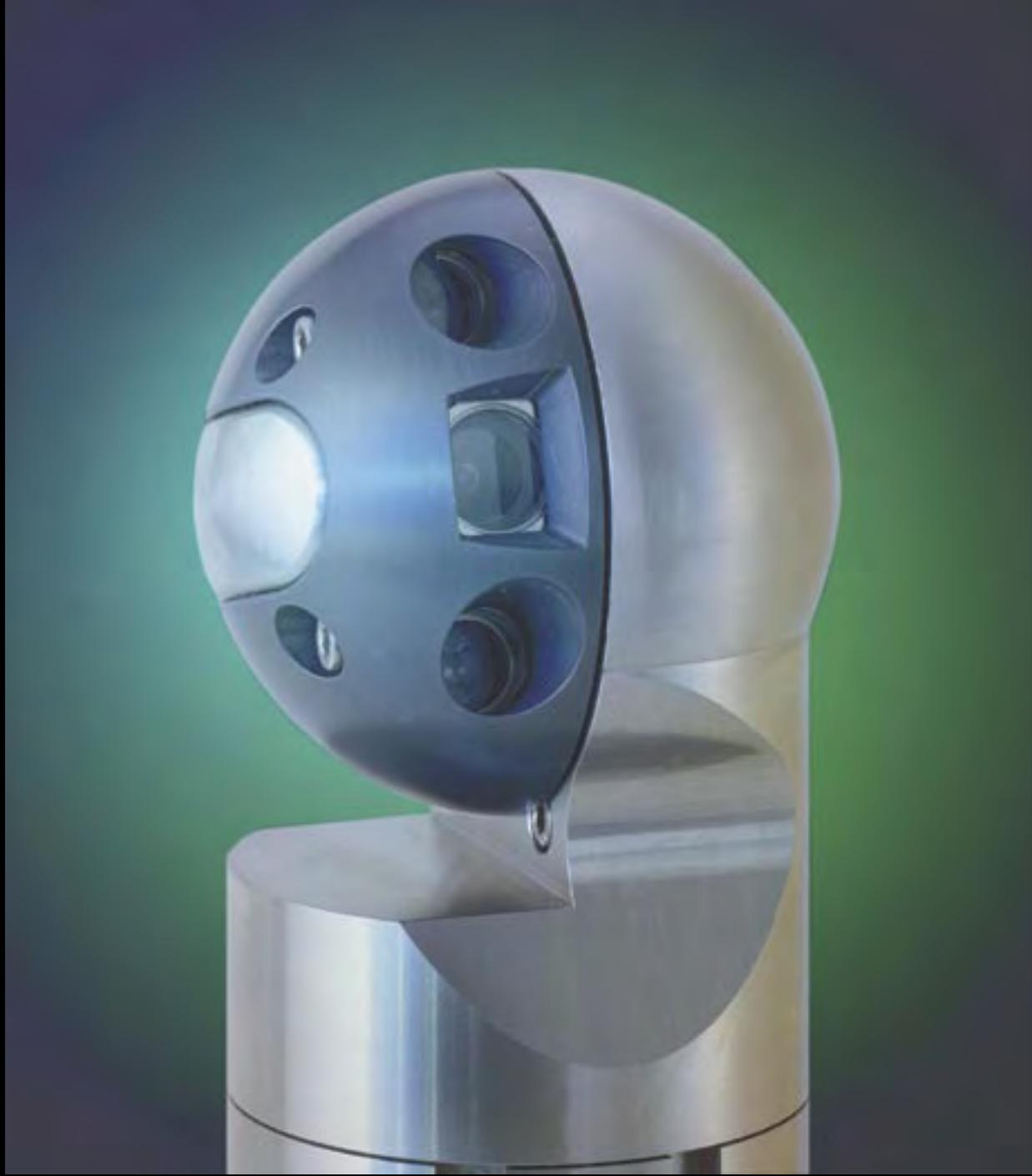
We look forward to serving you.



pearpoint

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cameras  
mainline inspection innovation



## Pan & Tilt Mainline Cameras

Pearpoint, the industry leader in video inspection technology offers a variety of quality-built mainline camera solutions designed to meet the varied and challenging demands of video pipeline inspection. These cameras are approved, labeled and listed by a nationally recognized testing laboratory (NRTL) for use in Class I, Div 1, Gas Groups C & D, T3 environments.



### One camera body, two camera head options



P494 flexiview

The **P494 flexiview® Camera** from Pearpoint features full 360° pan and tilt for maximum viewing capacity and better than 1 lux digital video processing. The P494 can be utilized on all P400 series tractors. The standard camera head is designed for inspection in lines 6" (150mm) in diameter and larger.

P494 Zoom

**40:1 Auto Focus Zoom Pan & Tilt Colour Camera Head Option** is designed for inspection in lines 8" (200mm) and larger in diameter. The 10X optical zoom followed by 4X digital zoom camera technology provides optimum clarity and the ability to capture the smallest details during mainline and lateral inspections. It is especially helpful when surveying large diameter pipe and for viewing past large obstacles.

- Versatile pan and tilt operation
- Standard head operates in pipes 6" (150mm) and larger in diameter
- Zoom head operates in pipes 8" (200mm) and larger in diameter
- Digital video processing for the sharpest, crispest image available at over 450 TVL
- Constructed of rugged 300 Series stainless steel and anodised aluminum, waterproof to 11 Bar (150 PSI)
- Full 360° continuous pan and tilt available on both P494 flexiview® camera heads
- Better than 1 lux sensitivity
- Built-in directional lighting with both camera heads
- Approved, labeled and listed by an NRTL for use in Class I, Div 1, Gas Groups C & D, T3 environments
- Compatible with other Pearpoint NRTL approved, labeled and listed components

# Interchangeable Transporters

## P420

6-Wheel drive small tractor for pipes 6" to 30" (150mm-750mm) in diameter; up to 110W of lighting

## P400

4-Wheel drive large tractor with remote controlled elevator for pipes 12" (300mm) and larger; up to 200W of lighting

## P448 (facing page)

4-Wheel drive large steerable tractor with remote controlled elevator for pipes 20" (500mm) and larger; up to 200W of lighting; negotiates radical bends and turns on its own axis

**P400 Series Mainline Tractors** are powered forward and reverse and provide significant performance advantages over track crawler systems in harsh environments such as unclean and debris filled lines.



- Inspection capabilities in lines 6" (150mm) and larger in diameter
- Approved, labeled and listed by a nationally recognized testing laboratory (NRTL) for use in Class I, Div 1, Gas Groups C & D, T3 environments
- Powered forward and reverse
- No external wiring to lightheads
- Wide variety of lightheads and wheels available for inspection versatility in various pipe materials such as PVC, concrete, VCP and corrugated



## Productivity PLUS

**The compact length of these robust tractors allows for easier manhole entry and maneuverability in difficult areas such as tight turned or curved bench inverts, offset joints, small spaces and tight pipe entries.**

With the **Optional P420 Tractor Swivel Tail Cable Connector** deployment into challenging and small entry points is made even easier.



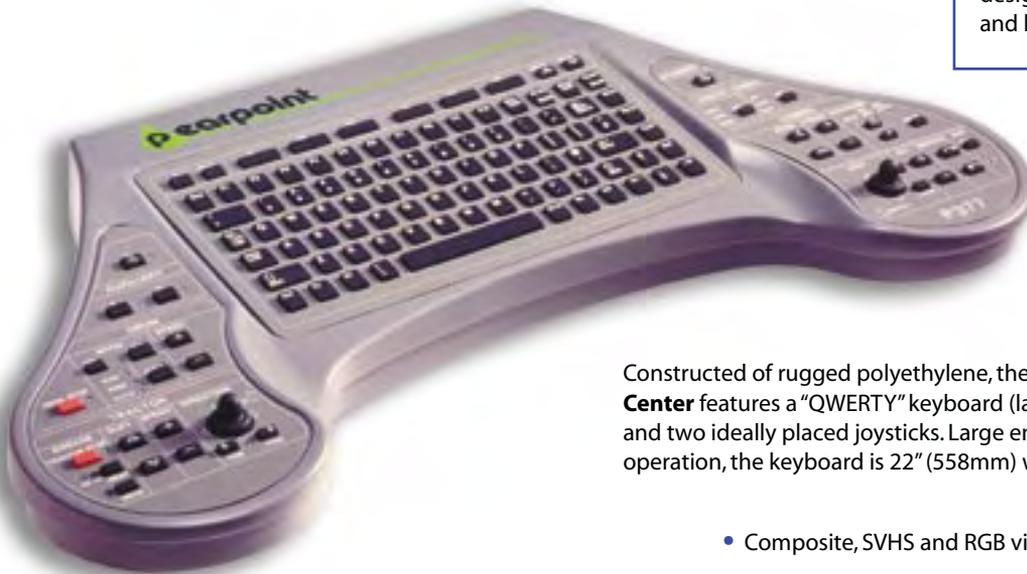
mainline navigation made easy

# fractors

## System Control

P377

An ergonomic keyboard designed for ease of use and high productivity



Constructed of rugged polyethylene, the **P377 System Control Center** features a "QWERTY" keyboard (laptop layout), function keys and two ideally placed joysticks. Large enough for normal finger strike operation, the keyboard is 22" (558mm) wide by 12" (304mm) deep.

Simple thumb movements operate the uniquely designed joysticks without having to relocate hands away from the keyboard.

Joysticks operate tractor movement and camera functions. Cable drum and light controls are also built into this ergonomically designed keyboard which can be desk top mounted or custom-cut inset.

- Composite, SVHS and RGB video outputs
- Composite and SVHS video inputs (for external video sources i.e. push camera)
- Auto and Manual camera iris controls
- Camera zoom and focus controls
- Easy-to-clean, splash proof, rugged HDPE construction
- Joystick camera and tractor operation
- Provides on-screen system diagnostics
- Controls camera, cable drum, tractor, lighting and peripherals
- On-screen menu driven
- RS232 and Ethernet connections
- Compatible with Pearpoint 25-50V color systems
- CE and FCC approved

## Mainline Configuration

A mainline inspection system consists of several key components along with a specific range of accessories such as lightheads and wheels to provide a solution ideally suited to the client's unique application and environment. This configuration is installed into a vehicle or other transport device of the client's choosing.

**P377 Controller** for operation of cameras, tractors, drum and lighting

**P599 Motorized Drum** with up to 2000' (600m) of Kevlar® reinforced cable

**P494 Standard or Zoom Camera with P420 Tractor**

*P599 works with all P400 Series cameras and tractors*

**P494 Standard or Zoom Camera with P400 or P448 Tractor**

**P378 Pendant Controller** provides a convenient alternative method for controlling the system from outside of the operator control room directly at the deployment site

designed for growth

# vehicles

productivity by design



## Custom-Built Inspection Vehicles

As a licensed vehicle converter and dealer\*, Pearpoint is your source for complete CCTV inspection equipment, vehicles and software solutions.

Numerous vehicle makes, models and styles are available to suit each client's specific requirements. Custom cabinetry, bathrooms, sinks, washdown systems, tool chests, work benches and specialized workstations are just some of the many options available.

Selection, superior craftsmanship and attention to detail—what to expect when you choose a custom-built inspection vehicle solution from Pearpoint.



### Available Configurations\*

#### Hi-Cube Van

12', 14' and 16' Boxes

#### Step Van

16', 18' and 20' Bodies

#### Utility Van

Economy, Standard and Extended

#### Freightliner Sprinter

Compact walk-through van by Mercedes-Benz

#### All Terrain Vehicles (ATVs)

#### Trailers

#### Retrofits

Previously outfitted vehicles can be equipped with Pearpoint systems

Pearpoint inspection vehicles feature the **P599 Cable Drum**.

This synchronized electric, automatic cable drum maintains cable tension and matches tractor speed (forward and reverse) automatically.

- Built of rugged cast aluminum with protective covering for operator safety
- Optional P378 remote control
- Built-in electronic footage counter with accuracy of +/- 1%
- Emergency shut-off
- Capable of running in manual and free-wheel modes

### P599 Cable Drum



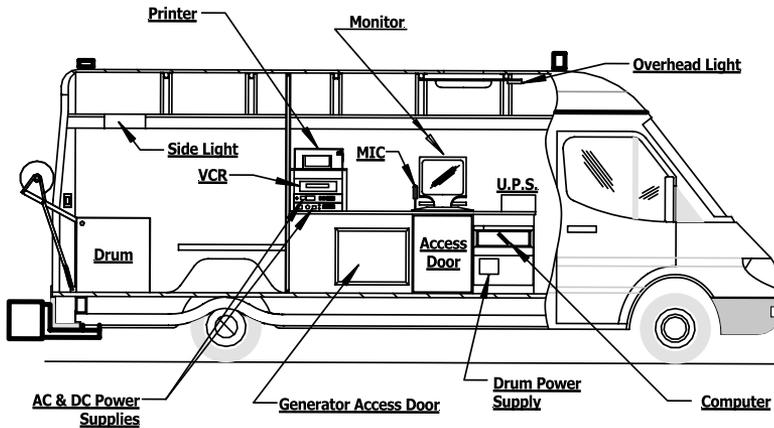
Cable Length Maximum  
EX 7 Core = up to 1350' (450m)  
EX 5 Core = up to 2000' (650m)

\* Vehicle Models, Configurations and Conversion Services vary by Pearpoint office location. Please contact your local representative for details and availability.

# vehicles

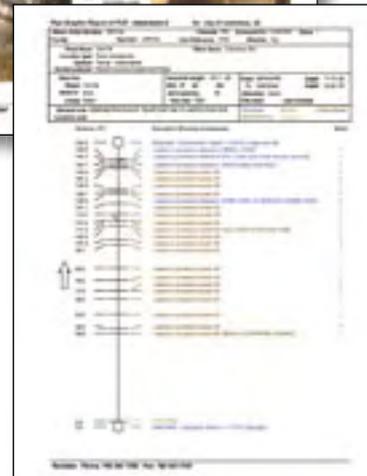
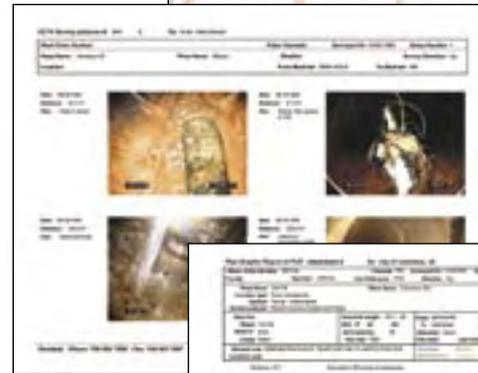
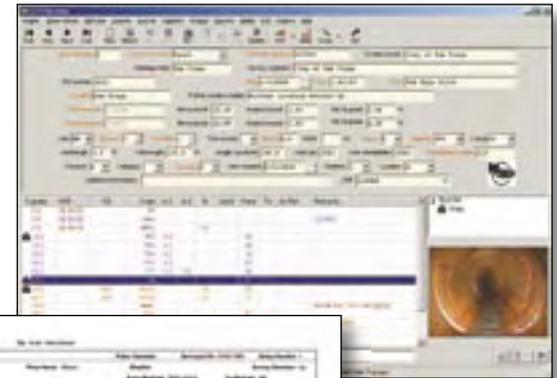
productivity by design





Pearpoint keeps ergonomics in mind when designing and planning the placement of computer equipment, desktop lighting and accessibility. No detail is left to chance as customer and designer work together to create the right inspection vehicle and equipment solution.

Hand-built cabinetry is available in numerous pre-set ergonomic comfort configurations or you may create your own special layout with the help of our design team.



## Total Survey Solutions...

We understand that in today's environment, documentation and accurate assessment of underground infrastructure is critical to the health and safety of the community. Pearpoint can provide compatible pipe survey data collection software from many well-known technology providers.

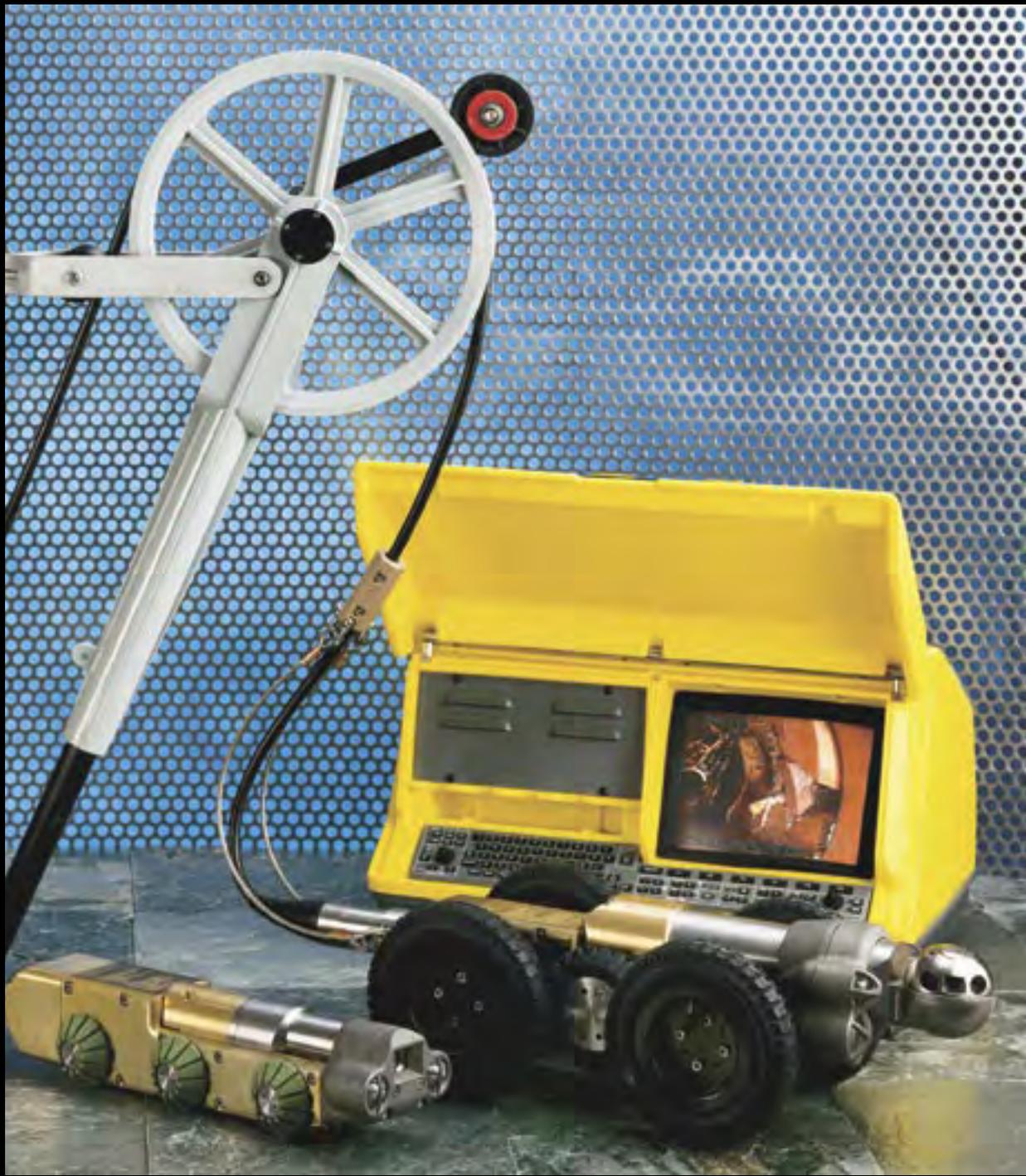
By incorporating an industry standardized pipe survey data collection software into the inspection system package, operators are provided an efficient, easy-to-use method for capturing, analyzing and sharing video pipeline inspection survey data.

Program solutions are available to work the way you prefer—out in the field or back in the office.

- Collect sewer, water line, manhole, grout and inclinometer survey data
- Capture digital video surveys in either MPEG1, MPEG2 or WMF format
- Select packages are compatible with Hansen NDEU, GBA Master Series, Azteca Cityworks and other well-known asset management programs
- Export data to map files for display on GIS systems
- Custom interface application services are available from select software providers

a complete package

mini-maintenance  
modular systems



# Modular Mainline Systems

## COMPONENTS

### Cable Drum

manual with a capacity of up to 1000' (350m) of cable

### P415 Straight View Camera

auto-uprighting, can be used on a push-rod or tractor based system

**Or**

### P494 Pan & Tilt Camera

Standard or Zoom head

### P420 Tractor

6-Wheel drive tractor for pipes 6" to 30" (150mm-750mm) in diameter

## PLUS

### P320 Universal Controller

portable, all-inclusive unit with 10" (254mm) monitor

- Compatible with all Pearpoint color cameras, tractors, lighthoods and cable drums
- Operates both push-rod and tractor based systems
- Portable or truck mounted
- Controls camera, tractor, peripherals and lighting
- Rugged HDPE construction with built-in sunshade
- Built-in diagnostics for easy fault finding
- CE and FCC approved
- Composite and SVHS video inputs/outputs
- RS232 port for software integration

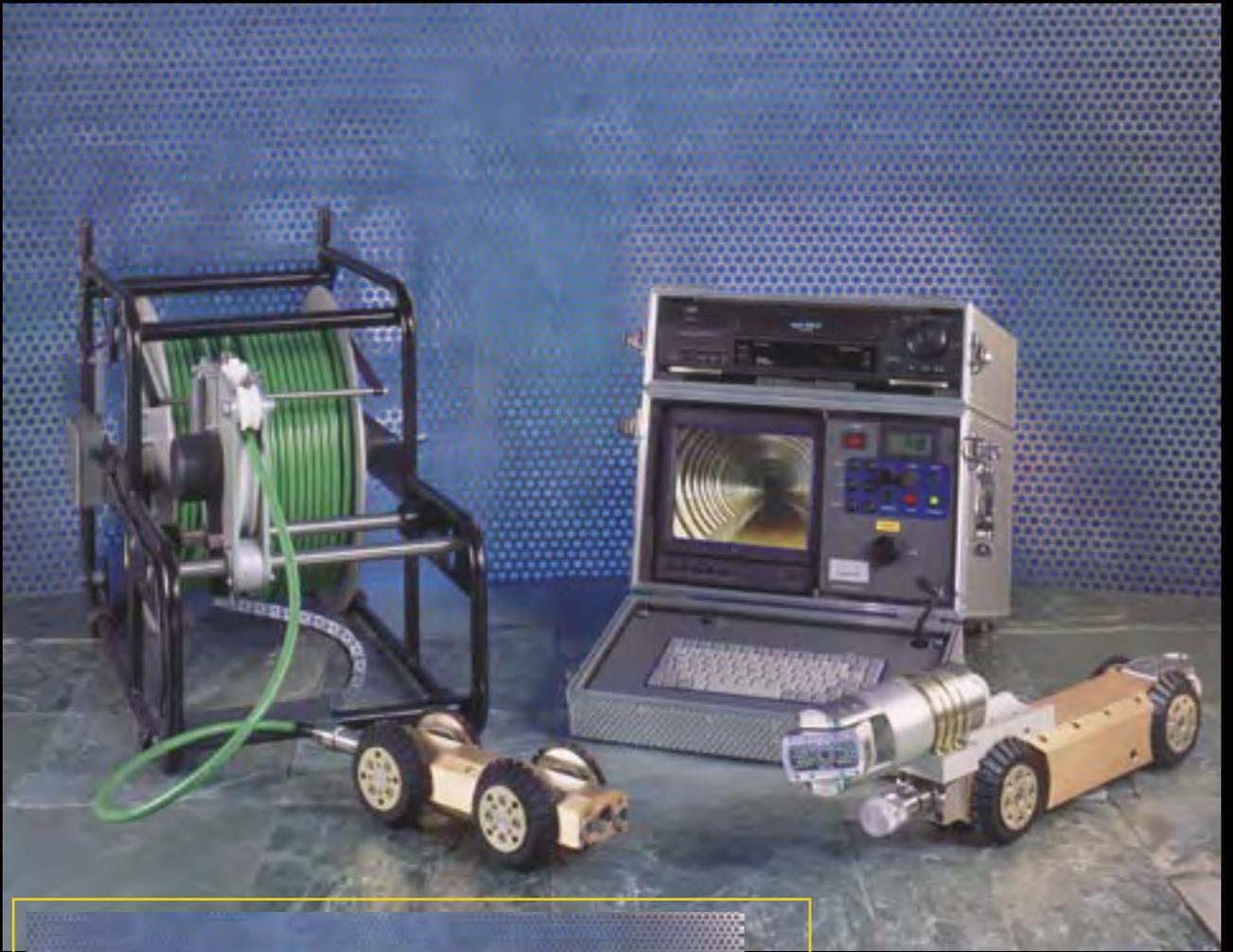
Pearpoint offers a complete line of portable mini-mainline inspection solutions and peripherals. These systems are upgradeable and expandable—built for functionality, durability and flexibility, able to grow with your inspection requirements as needed.

Outstanding features include: interchangeable cameras, drums and powered forward and reverse tractors; digital video processing with better than 1 lux sensitivity; compact design for easy transport into easements and difficult or limited access locations; ability to be upgraded to a vehicle mounted system.

These systems are approved, labeled and listed by a nationally recognized testing laboratory (NRTL) for use in Class I, Div 1, Gas Groups C & D, T3 environments.



elk series™ portable mainline solutions



## Portable Mainline

### **Systems to Suit Your Basic Inspection Requirements**

Incorporating advanced technology, the modular design of the **ELK™ Series (Entry Level Krawler)** of CCTV inspection systems offers a selection of solutions to cost-effectively fulfill your visual inspection requirements.

These systems are easy-to-use and are extremely adaptable to a range of inspection requirements. Upwards and backwards compatible, they are an excellent choice for the growing commercial contractor entering the inspection and rehabilitation market or small to mid-size municipalities.

#### T100 Mini

A compact and flexible system with combination straight-view camera and tractor for inspection in lines 4"-10" (100mm-250mm) in diameter. Upgradeable to the T200 Midi System.

#### T200 Midi

A simple to use modular, portable mainline inspection system with pan & tilt camera designed for inspection applications in pipes 6"-30" (160mm-750mm) in diameter.

- Inspection capabilities in pipes 4"-30" (100mm-750mm)
- Built in VCR and Screen writer
- Manual drum available with 500' (150m) of cable
- Drum is equipped with a built-in electronic footage counter
- Both the Mini and Midi tractors are variable speed forward and reverse
- T200 Midi system offers a 360° x 270° pan and tilt camera with 1 lux sensitivity and built-in ultra-bright white LED lighting
- CE approved
- Tractors are constructed of solid brass with stainless steel fittings



# elk series™

portable mainline solutions



## Portable Mainline

- Inspection capabilities in pipes up to 48" (1200mm)
- Built in VCR and Screen writer with full size QWERTY keyboard, programmable short-cut keys and on-screen footage counter
- Manual drum available with 500' (150m) of cable and built-in electronic footage counter
- Midi and Mainline tractors are variable speed forward and reverse
- T200 Midi system offers a 360° x 270° pan and tilt camera with 1 lux sensitivity and built-in ultra-bright white LED lighting
- CE approved
- Tractors are constructed of solid brass with stainless steel fittings

### A Complete Cost-Effective Family of Cameras and Tractors to Suit Your Inspection Needs

#### **Shown left to right:**

T100 - Mini Krawler with  
Built-In Straight View Camera

T200 - Pan & Tilt Camera & Midi Krawler

T200 - Pan & Tilt Camera & Midi Krawler  
with manual elevation device

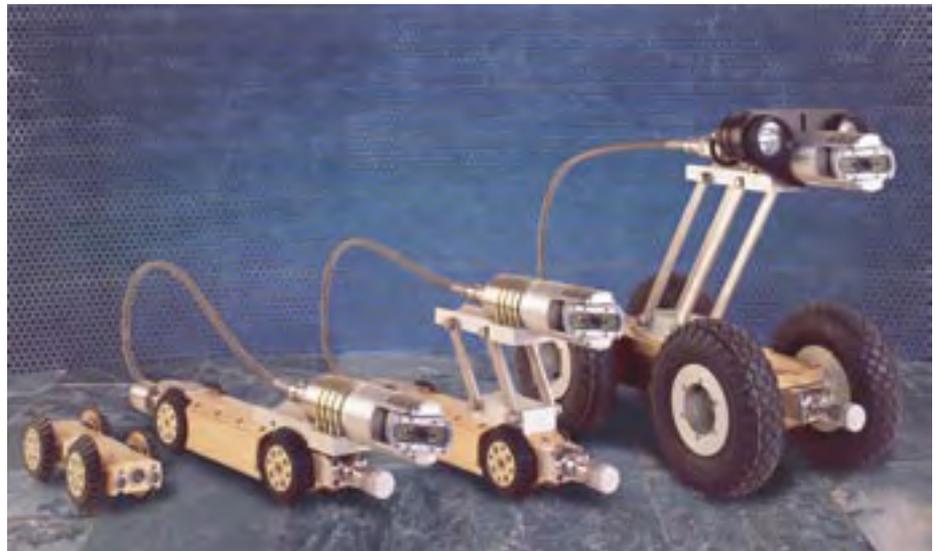
T300 - Pan & Tilt Camera & Mainline Krawler  
with manual elevation device



The **ELK™** Series also offers a portable/rackmount vehicle mainline inspection configuration for inspection of pipes up to 48" (1200mm) in diameter and up to a distance of 1000' (300m).

The T300 Mainline system is fully compatible with the entire range of **ELK™** cameras and accessories for maximum versatility and growth.

The system is also available in a borehole inspection configuration.



# push-rod systems

robust and compact solutions



# Large Push-Rod Systems

Pearpoint's *flexicoiler*™ and modular push-rod systems are fully integrated, stand-alone units ideal for applications such as sewer lines, water pipes, pest control, chimneys, search and rescue, drains, conduits, wells and industrial inspections.

These systems are approved, labeled and listed by a nationally recognized testing laboratory (NRTL) for use in Class I, Div 1, Gas Groups C & D, T3 environments.



- Available with P415 Mk2 auto-upright straight view camera or P455 TwinView camera
- Versatile coiler running 500' (150m) of push-rod (3/8"/10.5mm diameter) with built-in accurate high resolution footage counter
- Built-in sonde (8.125 kHz)
- Waterproof to 11 Bar (150 PSI)
- Composite video input/output for any external recording system
- Modular system upgradeable to a tractor based system

Straight view, auto-upright colour camera designed for the inspection of pipes 4" to 24" (100mm-600mm) in diameter with 1 lux sensitivity, 450 TVL resolution, remote electronic iris and auto focus. Negotiates 4" (100mm) 90° bends. A variety of peripherals such as lightheads and skids are available.

## P415 Mk2



## P455 Twin View



An extraordinarily robust and flexible camera, offering pan and tilt like features on a push-rod system for inspection of 3" to 18" (75mm-450mm) pipes. Negotiates 4" (100mm) 90° bends.

The dual view facility with its 360° radial 90° view camera provides outstanding survey capabilities for mainlines, laterals, welding points, water wells and boreholes.



P455 Large Lighthead

## Mini Systems

These fully integrated units feature a versatile coiler running 200' (60m) of push-rod, rod counter, built-in connector for VCR or video printer and a QWERTY keyboard built into the monitor.



### P374 IS MiniCam

The P374 IS is approved, labeled and listed as intrinsically safe for inspection and entry to Zone 0 (Class I, Division 1, Gas Group A), T6 environments. Designed for applications in pipes 1" to 4" (25mm-100mm). Constructed of rugged, rust-proof cast/welded aluminum.

#### **Ideal for applications such as:**

hazardous locations, process piping, pipelines and compressor stations, drainage systems, weld inspections, remote visual construction and commissioning inspections, structural elements, foreign object and debris removal, flare stacks, towers and chimneys, manufacturing (extruders, hydraulic systems, pumps, event monitoring), remote visual support for life assessment, forensics, turbines and compressors

- Manually set focus
- Color digital processing
- Composite video output/input
- 200' (60m) of push-rod
- Maintenance-free white LEDs
- Fully integrated, self-contained unit
- Sapphire glass window for durability
- Built-in connector for VCR or video printer
- 110V AC or 12V DC
- Waterproof to 11 Bar (150 PSI)

### P373 MiniCam

Designed for basic applications in pipes 1" to 4" (25mm-100mm). Constructed of rugged, rust-proof cast/welded aluminum.

**Ideal for applications such as:** residential and commercial drains, pest control, conduits and search and rescue

pearpoint...since 1983

...setting the standard to how  
video pipeline inspection equipment is built.



## Europe

### **Radiodetection Ltd.**

Western Drive  
Bristol BS14 0AF  
United Kingdom

+44 (0) 117 976 7776  
+44 (0) 117 976 7775 (f)

### **Radiodetection SARL**

13 Grand Rue  
76220 Neuf Marché  
France

+33 (0) 232 8993 60  
+33 (0) 235 9095 58 (f)

### **Radiodetection B.V. Benelux**

Industriestraat 11  
7041 GD's-Heerenberg  
Netherlands

+31 (0) 314 66 47 00  
+31 (0) 314 66 41 30 (f)

## Asia/Pacific Rim

### **Radiodetection (China) Ltd.**

Room 708, CC WU Building  
No. 302-308 Hennessy Road  
Wan Chai, Hong Kong

+852 211 08160  
+852 211 09681 (f)

### **Radiodetection (Japan) Ltd.**

Room 203, Maida Building  
7-25, Hiroshiba - Cho  
Suita, Osaka 564-0052  
Japan

+81 (0) 6 6192 0211  
+81 (0) 6 6192 0212 (f)

### **Mactek Pty. Limited**

#### **A Division of Radiodetection Ltd.**

Unit 14, 5-7 Prosperity Parade  
Warriewood NSW 2102  
Australia

+61 (0) 2 9979 8555  
+61 (0) 2 9979 7733 (f)

## Americas

### **Pearpoint, Inc.**

72055 Corporate Way  
Thousand Palms CA 92276  
United States of America

800 688 8094  
760 343 7350  
760 343 7351 (f)

### **Radiodetection Canada**

344 Edgeley Boulevard  
Unit 34  
Concord ON L4K 4B7  
Canada

905-660-9995  
905-660-9579 (f)

[www.pearpoint.com](http://www.pearpoint.com)

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