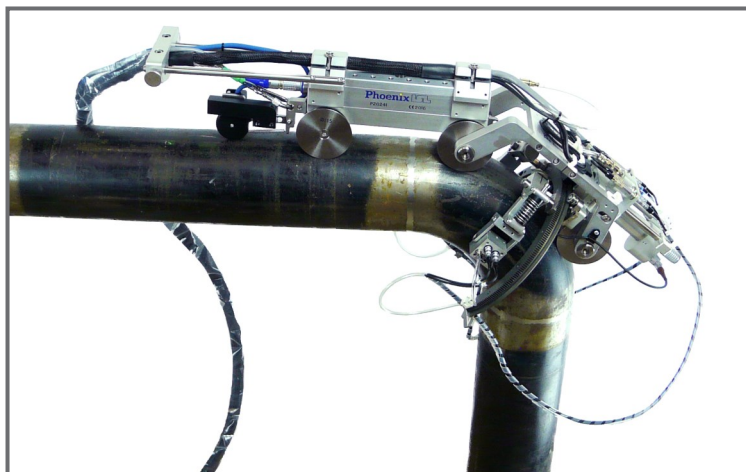


PET Scanner

Pipe Elbow Tracker



The PET scanner offers a versatile and portable inspection solution for mapping wall thickness reduction, due to corrosion and erosion, in both straight pipes and around pipe elbows. It can be configured to operate on all standard pipe sizes from 4" to 24"OD.

Benefits

- **Versatile:** Inspects pipe sizes from 4" to 24" OD
- **Comprehensive:** Provides dual axis fully encoded C scan
- **Adaptable:** Corrosion Mapping; 370° scan coverage of straight pipes and 190° on pipe elbows
- **Fast:** Most efficient method to map a pipe bend
- **Compatible:** With leading manufacturers flaw detectors

At the core of the PET scanner is a motorised single-axis magnetic crawler to traverse along the length of a pipe and a trailer module provides the motorised circumferential drive. A ring segment is driven by the trailer module, rotating through 180°. Utilising two transducers; mounting one at each end of the ring segment, provides 360° surface coverage in a single movement. On pipe elbows, where only the outer surface requires inspection, a single transducer is mounted in the centre of the ring segment to provide a single scan of the extrados area.

The height profile of the inspection ring and transducer holder has been minimised to allow the PET scanner to operate in areas with clearance of just 80mm.

The PET scanner is capable of inspection on all pipe sizes using conventional or phased array probes. The transducer holder is spring loaded and conformable to keep the transducer aligned and in contact with the pipe whilst scanning over the changing geometry.

The transducers mount centrally within the holder and can be manufactured to suit the pipe thickness. Profiled magnetic wheels to suit the pipe diameter ensure accurate tracking around the pipe.

Features

Parameter	Value
Minimum pipe size	4"
Maximum pipe size	24" or flat
Minimum elbow bend radius	1.5x OD
Radial clearance above transducer	80mm
Radial clearance above scanner	120mm (straight pipe) 160mm (pipe elbow)
Scanner length	600mm
Axial scan coverage	Unlimited (10m cable)
Circumferential scan coverage	370° on straight pipe 190° on pipe elbows
Position repeatability	<3mm
Maximum axial speed	10mm/s
Maximum circumferential speed	25mm/s
Motor type	24V, 1A
Primary scanning axis	Circumferential
Transducer size	30mmx30mm
Protection	IP54
Temperature range	10°C - 50°C

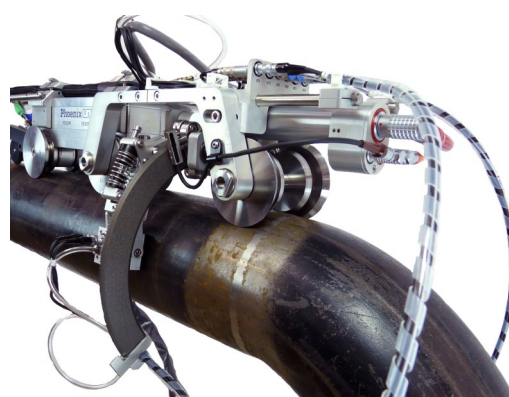
Options and Accessories

- Peristaltic couplant pump
- Ring Segments—To specified size
- Phased array probes



Kit

- Motorised dual-axis magnetic crawler
- Contoured wheels
- Trailer module with motorised circumferential drive
- Spring loaded waterproof encoder unit
- Ring segment with slide assembly
- Low-profile toolpost assembly
- Spring-loaded transducer holder
- Umbilical cable for motors, encoders and UT data



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