

SmartScan technology pioneers in-line data collection for unpiggable pipelines.

One third of the world's pipelines are currently unpiggable because of access and valve restrictions, multi-diameter designs, impassable fittings and a myriad of other configuration issues. While regulations demand more rigorous compliance criteria – operators have limited, expensive options for integrity assessment.

Now, for many of those pipelines, this no longer has to be the case.

GE Energy's new tool for unpiggable pipelines

This is the first generation in a whole family of advanced in-line inspection tools based on SmartScan™ technology. These tools are capable of affordably navigating previously unpiggable pipelines – giving pipeline operators multi-million-dollar savings potential.

The SmartScan tool can be deployed from our innovative new angled hot-tap system and mobile launchers and receivers (patent pending) through a hydraulic chute that is attached over a smaller-bore hole in the pipe. The hot-tap fitting remains as part of your asset, providing easy access for future inspections and cleaning requirements.

SmartScan can enter and exit pipe sections between restricted valves, can utilise valve bypasses for continuous inspection over longer distances, or can be inserted to just inspect High Consequence Areas (HCAs).

Also inspects low-flow or out-of-service lines

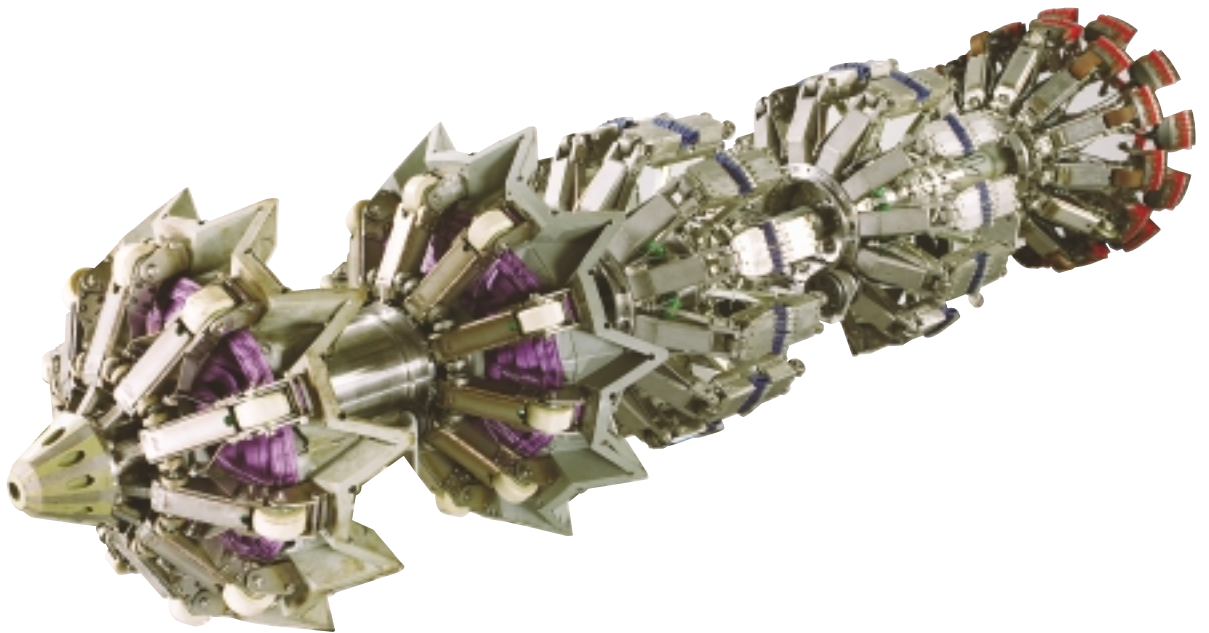
Future versions of the SmartScan tool will incorporate a self-propelled crawler-tractor to manoeuvre through pipelines with low flow or no flow at all.

It gives you the advantage of inspecting during scheduled maintenance intervals – thereby minimising the total cost of service interruptions.

Data quality

SmartScan delivers a comprehensive integrity evaluation based on our proprietary high-resolution MFL data collection process. This enables data to be fully integrated, aligned and visualised for maximum analysis value.

With this quality of data now possible, and our PipeView™ Suite of advanced software applications – you now have a complete picture of your pipeline's immediate and long-term integrity.

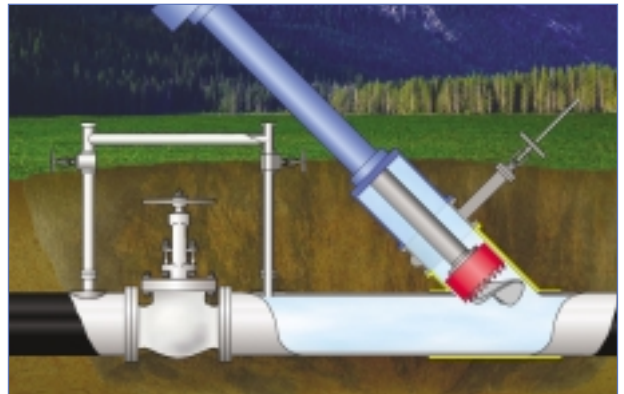


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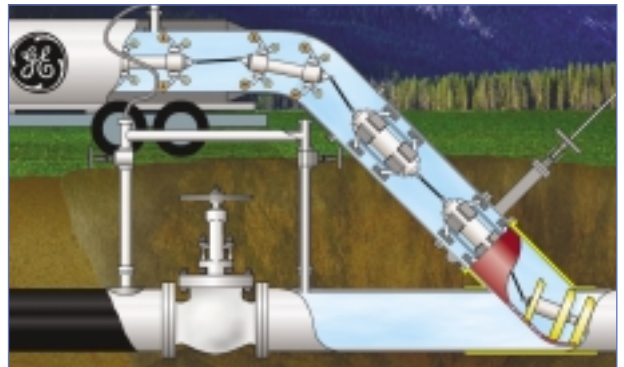
SmartScan Features

In-line inspection of previously unpiggable pipelines – with lower costs and higher confidence than DA or hydrostatic testing.

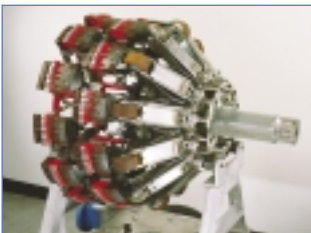
- Multi-diameter: 20-26", 24-30" and 16-20", with smaller and larger diameters to follow
- Launch/Receive: 1D 18" 45° hot-tap entry/exit
- Conventional hall sensors
- Defect specification: existing MFL spec.
- Bends: 1.0 D single bend (1.5D 90° back-to-back bend passing)
- Bore passing: 15% reduction @ 20"
- Pressure: 100 Bar (1450 PSI)
- Product: Gas, Refined Products, Crude
- Temperature: 0 - 60°C
- Speed: 1-4 m/sec (3.3'-13.1') in gas, 0.5-4 m/sec in liquid
- Range: 240 km (150 mi)
- Wall thickness range: 6.35-12.7 mm (0.25"-0.5")
- Max wall thickness: 12.7mm (0.5")
- Min. continuous bore: 456 mm (18")
- Min. valve bore: 432 mm (17") (local full bore)
- Dents: 410 mm (16.1"), 95% of local full bore
- Steps: 13 mm (0.51") full circumferential; 26 mm (1.2") 60 degrees
- Off-takes: full bore unbarred (excl. 6 o'clock)



The innovative angled hot-tap allows entry and exit at any point along the line. The fixture remains for the benefit of future inspection and cleaning.



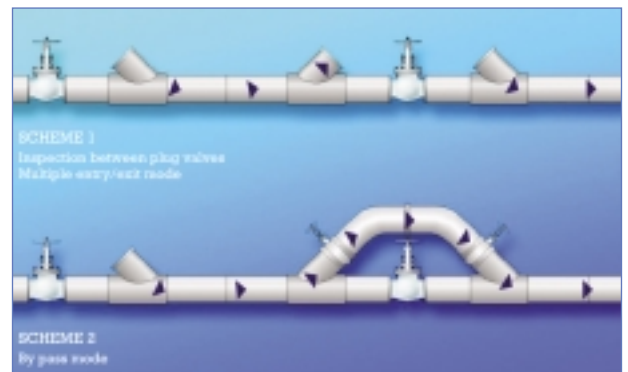
GEN 1 enters and exits with the assistance of our new chute that allows medium flow to continue regardless of the hot tap's insertion point.



Sensor carrier with no-touch magnets.



Collapsible multi-diameter drive section.



The tool can perform valve-to-valve inspections or, with the use of valve bypasses, longer-distance runs.

Contact

For more information on SmartScan, contact your GE Energy representative, or visit www.gepower.com/pii