

IN-LINE INSPECTION AND INTEGRITY SUPPORT SERVICES GEOMETRY AND MFL INSPECTION

In-line inspection allows pipeline operators to have better information on the condition of their pipeline systems and develop adequate maintenance and repair programs. Adopting a proactive approach to addressing integrity threats enables pipeline operators to avoid production and consequential losses caused by pipeline failures.

PIPECARE provides geometry and MFL inspection services. These proven technologies provide pipeline operators with invaluable pipeline condition information, which helps them to improve safety, environmental and economic performance.

PIPECARE GEOMETRY TOOLS

Tool sizes
Pipeline product
Operating pressure range
Operating temperature range
Wall thickness range
Tool velocity range
Min. pipeline bend radius
Min. bore reduction
Axial resolution
Circumferential coverage

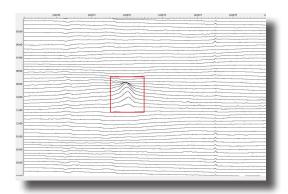
3" to 24"
Gas, liquids, multiphase
0 to 120 barg
-20 to 85° C
3 - 25.4 mm
0.2 - 5.0 m/sec
1.5D (4" and above)
70-75% of OD
2.5 mm

360 degrees



Tools of other sizes and higher performance specification are available upon request.





DETECTION AND SIZING SPECIFICATIONS

Features and anomalies:

- Valves, flanges, welds, tees, taps, bends
- Dents, buckles, wrinkles, ovalities, ID changes

Detection and sizing specifications (at 80% certainty):

Dents detection threshold	1.5% of OD
Depth sizing accuracy	1.5% of OD
Ovality detection threshold	2% of OD
Ovality sizing accuracy	2% of OD
Probability of detection	95%

Location accuracy (at 90% certainty):

Axial position from closest weld	0.15 m
Accuracy of distance from pig trap valve	0.2%
Accuracy of circumferential position	10°



IN-LINE INSPECTION AND INTEGRITY SUPPORT SERVICES GEOMETRY AND MFL INSPECTION

PIPECARE MFL TOOLS

Wall thickness range

Min. pipeline bend radius

Tool velocity range

Min. passage bore

3" to 24" Tool sizes

Pipeline product Gas, liquids, multiphase

Operating pressure range 0 to 120 barg Operating temperature range

-20 to 85° C

3 - 25.4 mm

 $0.2 - 5.0 \, \text{m/sec}$

1.5D (6" and above)

80-85% of OD



Optionally, the MFL tools can be equipped with tri-axial sensors for even better detection and sizing. Tools of other sizes and higher performance specification are available upon request.

DETECTION AND SIZING SPECIFICATIONS

	General Metal Loss	Pitting	Axial Grooving	Circumferential Grooving
Depth at POD 90%	0.1t	0.1t	0.1t	0.1t
Depth sizing accuracy at 80% certainty	0.1t	0.13t	0.15t	0.1t
Width sizing accuracy at 80% certainty	+/- 15 mm	+/- 12 mm	+/- 12 mm	+/- 15 mm
Length sizing accuracy at 80% certainty	+/- 10 mm	+/- 10 mm	+/- 15 mm	+/-10 mm

LOCATION ACCURACY

Axial position from closest weld at 90% certainty 0.15 m Accuracy of distance from pig trap valve at 90% certainty 0.2% Accuracy of circumferential position at 90% certainty 10°

FLEXIBLE SOLUTIONS

To clients who operate pipelines that are difficult to inspect, we offer our tailor-made solutions for pipelines that have the following conditions:

- -Low pressure
- -I ow flow
- -High temperature
- -Heavy wall thickness
- -Sour product
- -No pig traps or single point entry

Contact us for your customized in-line inspection solution today!

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