

High resolution MFL inspection tool

High resolution MFL(Magnetic Flux Leakage) inspection tool is able to execute in-line NDT for the pipeline base metal and weld, and the maximum inspection thickness reaches 31mm. Features such as metal loss defect, crack, weld abnormality, repaired defect, outer support and fittings can be detected by MFL inspection tools and reported by later analysis. The results can be directly used to improve pipeline operation, pipeline maintenance and/or repair, remaining strength and residual life estimation.

The clients of this type of MFL inspection service has covered Petro China, Sinopec, CNOOC and other similar factories. The total inspection length, including subsea pipeline, underground pipeline, river cross pipeline and port yard pipeline, has reached approximate 5,000 km, the media of which concerns crude oil, natural gas, finished HC compound and multiphase fluid.

MFL tool size available from our inspection resources covers from 6" to 30", parameters of several tools see below.

[illegible]

Minimum pipeline bend radius	≥1. 5D							
Maximum Allowable Deformation	≤15%D							
Corrosion Channel No.	144	180	216	270	300	468	540	600
Odometer No.	3	3	2	2	2	3	3	3
Circumferential Channel No.	1	1	1	1	1	1	1	1
Operating Speed Range	0.5~5m/s							
Metal loss Defect Depth Sizing Accuracy	Confidence Level	General Corrosion	Pit	Axial Grooving		Circumferential Grooving		
	80%	± 10%wt	± 10% wt	-15%~+10% wt		-10%~+15% wt		
	90%	± 15% wt	± 15% wt	-20%~+15% wt		-15%~+20% wt		
Defect Axial Position Accuracy	Distance from feature to upstream girth weld: ±0.2m, distance from marker to upstream girth weld: ±1%							
Defect Circumferential Position Deviation	±10°							

NOTE: wt= wall thickness