Radiometric Profiling [RP]

Capabilities for Non-Destructive Testing of piping compared to *Pulsed Eddy Current [PEC]*

Examining the Non-Destructive Testing (NDT) options for pipe testing will ensure you and/or your mechanical contractor are able to make the best choice while considering efficiency, effectiveness and scope. The details below compare the capabilities of RP, which is best for testing more insulated and bare piping in less time and results in more data points across the system than with PEC, which is best for testing larger, flatter surfaces such as vessels.

	Radiometric Profiling [RP]	Pulsed Eddy Current [PEC]
Tests insulated piping 'as is'	**Capable.** Jacketing and insulation remain intact, testing does not breach the vapor barrier.	**With exception.** Removal of insulation above 8" thick is required. Suitable for magnetic steels only.
Zero radiation exposure risk	**Capable.** There is zero radiation exposure risk. Testing can occur during business operations without interruption.	**Capable.** There is zero radiation exposure risk. Testing can occur during business operations without interruption.
All piping can be tested	**With exception.** Can interrogate all piping up to 24" diameter, including nested and suspended.	**Not Capable.** Inappropriate for small diameter piping, results are affected by nearby pipe, flanges, valves, and other ferrous steel.
Real-time results	**Capable.** Additional locations can be tested based on results to determine extent without impact on job scope.	**Capable.** Additional locations can be tested based on results to determine extent, may impact job scope.
Fast evaluation	**Capable.** Average rate of data collection is 200 test locations per day.	**With exception.** Average rate of data collection is 100 test locations per day on large diameter piping.
Measures entire pipe profile, 360°	**Capable.** Measures the entire circumference of the pipe, top and bottom, wall to wall.	**Not Capable.** Measures average single wall.
Water or ice in insulation	**Capable.** Detected and measured in insulated piping in its current state.	**Not Capable.** Cannot measure water or ice in insulation.
Pipe wall thickness	**Capable.** Measured in bare and insulated piping in its current state.	**With exception.** Accurately measured in bare and insulated piping above 6" without isolated pitting.
Pipe size + schedule	**Capable.** Measured in bare and insulated piping in its current state.	**With exception.** Accurately measured in bare and insulated piping above 6" without isolated pitting.
Corrosion	**Capable.** Evidence is identified in bare and insulated piping in its current state.	**With exception.** Accurately measured in bare and insulated piping above 6" having general corrosion only.
Erosion	**Capable.** Evidence is identified in bare and insulated piping in its current state.	**With exception.** Accurately measured in bare and insulated piping above 6" having general erosion only.