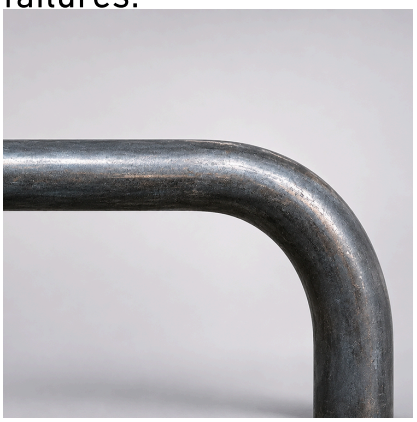
DIMENSIONAL MEASUREMENT OF OUTLET PIGTAIL TUBES

Outlet pigtails connect reformer tubes to the outlet manifold and accommodate thermal expansion. Prolonged exposure to high temperatures can cause creep deformation and tube expansion. Precise dimensional measurements help detect critical changes early and prevent unexpected failures.



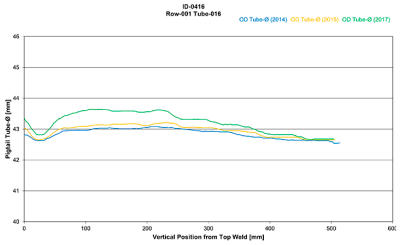
THE CHALLENGE

Outlet pigtails transport process gas from reformer tubes to the outlet manifold while compensating for thermal expansion. Their ductile material can undergo significant diameter expansion under excessive thermal loads before failure occurs. Such damage can develop independently of the reformer tubes and poses serious risks to plant availability and personnel safety. Reliable monitoring is essential to identify critical deformation before tube rupture.

THE SOLUTION

FOERSTER uses a specialized mechanical measuring system to capture pigtail diameters along two axes, covering both straight sections and bends. The system measures the pigtail from the reformer tube outlet to the manifold, accounting for dimensional differences caused by bending. Compared to conventional spot measurements with calipers, it provides faster, more accurate and repeatable inspection results. Digital diameter profiles enable detailed comparisons between inspections, making progressive creep deformation visible over time.





THE RESULT

Early detection of tube expansion enables targeted maintenance and timely replacement of damaged pigtails. Reliable condition monitoring helps reduce the risk of sudden failures, improve personnel safety and minimize unplanned shutdowns.

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