

HF Alkylation Flange Face Inspection Services

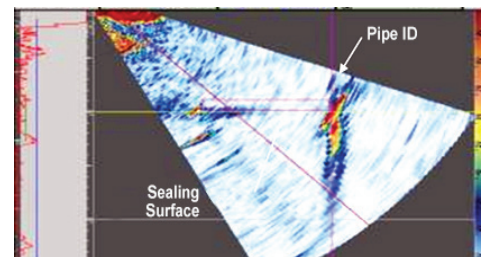
Piping flanges in hydrofluoric acid systems are typically subject to under-gasket corrosion. Historically, traditional inspection programs have relied on visual inspection methods to identify and determine corrosion damage to the raised face of the flange. This procedure is costly and involves breaking and remaking flanges that in some cases may not be necessary.

MISTRAS has developed a proven ultrasonic procedure to inspect flange faces in HF Alky service using Phased Array Technology. We have a successful track record built over the course of 20+ years with inspections at multiple refineries in North America, totaling 15 Alky units and over 6,000 flanges inspected.

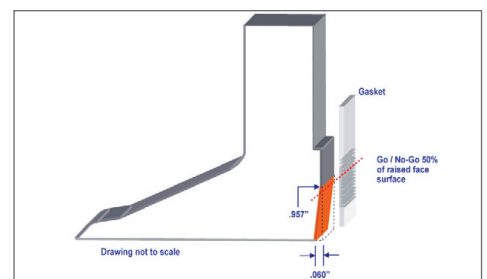
While corrosion detection is an obviously important part of the inspection, the ability to size the depth of corrosion across the flange's raised face is the single most critical component of the evaluation. MISTRAS performed extensive laboratory trial testing to meet a predetermined tolerance value of 0.030 of an inch, yielding an accuracy percentage along the axial plane of the flange raised face.

The MISTRAS flange face inspection technique examines the entire width of the flange raised face (sealing surface) and can determine corrosion presence, maximum material loss in terms of depth, and any progression of existing corrosion across the sealing surface. This inspection is a non-intrusive technique that may be performed either in-situ or onstream and helps to eliminate unscheduled downtime. It also assists in compliance with API Recommended Practice 751, identifies at-risk flanges, and eliminates safety issues regarding "open flange" conditions.

Field inspection data is recorded, analyzed and pictorially presented for inclusion into the final report. Data analysis and final reports may include MS Word, MS Excel and AutoCAD drawings which are combined into one document for final submittal. MISTRAS utilizes Level II Phased Array/Shearwave certified advanced technicians with extensive training in HF Alkylation inspection techniques. The HF flange inspection trainer is certified as a Principle Level III and certified Non-Destructive Testing (NDT) instructor in accordance with MISTRAS' certification procedures.



HF flange face inspections help prevent flanged joint failure brought on by damage to the sealing surface



MISTRAS' technique can size the depth of corrosion across the flange raised face

**Prevent flange face corrosion from
shutting down your operations.**

Call +1-833-MISTRAS