

RTJ FLANGE SPECIAL ULTRASONIC TESTING

DETECTION OF GROOVE CRACKING **WITHOUT BOLT DISMANTLING**

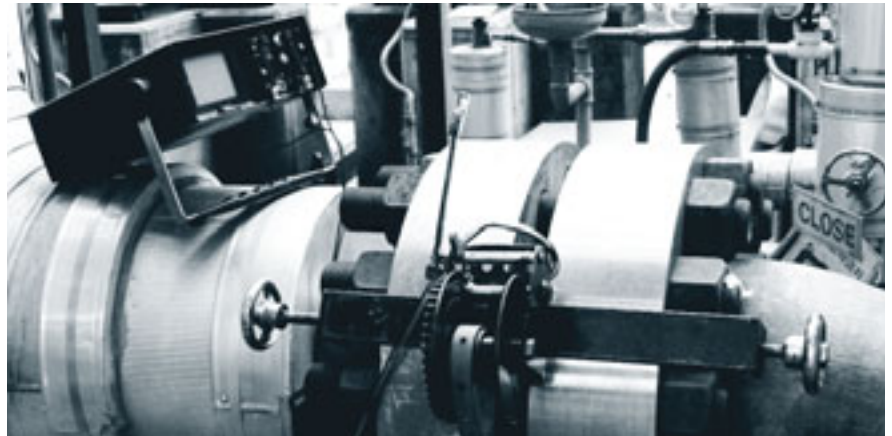
Many stainless steel flanges used in high pressure and temperature conditions are affected by cracking decreasing the process integrity. Up to now, general penetrant testing has been used for the flange examination but this method needs the dismantling of the flange and reassembly afterwards. In case of standard ultrasonic testing the dead zone generated below the bolt holes is very significant and decreases the effectiveness of inspections. SGS introduces a unique and very advanced inspection technique to inspect Ring Type Joint (RTJ) flanges for cracks while in-service and without a dead zone.



INSPECTION TECHNIQUE

RTJ flange inspection is based on ultrasonic testing which sends ultrasonic waves to the flange top only. In contrast, the SGS technique also introduces the sound waves obliquely and vertically to the groove face and flange top.

These scanning methods make it



possible to cover all of the groove area, including parts below bolt holes.

With the SGS method, flanges larger than 4 inches can be inspected. The time required to inspect one pair of flanges is significantly reduced and all unnecessary cost of dismantling and mounting can be prevented unless defects have been found. This technology ideally supports our Asset Integrity Management (AIM) solution to make sure your assets operate safely and efficiently.

ADVANTAGES

- Inspection of all the flange groove area
- Unnecessary to dismantle bolts
- Unnecessary to rearrange pipes
- Fast and accurate inspection for critical defects
- Used to determine which flanges need to be opened during turnaround projects
- Can be used in service up to 70 °C

THE SGS EXPERTS

SGS Industrial Services has the knowledge, expertise and experience to perform conventional and advanced NDT inspections around the world using our unique network. Our service offers varies from Guided Wave and the conventional NDT techniques to Risk Based Inspection (RBI/AIM), Time of Flight Diffraction (TOFD), Corroscan, Positive Material Identification (PMI), Magnetic Flux Leakage (MFL), ACFM, Leak Testing, Thermography, Electromagnetic Testing (ET), RFEC, IRIS, Digital Radiography, Radiation Detection, RVI and Endoscopy Inspections.

We are pleased to provide services to any location around the world, pertaining as to how SGS can help you in improving the reliability of your processes and assets.

CONTACT US

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