

Tube to Tube Sheet Weld Inspection

Outperforming Traditional Methods

MINIMIZE OPERATIONAL RISKS AND OPTIMIZE ASSETS

REFINING & CHEMICAL



Tube to Tube sheets are an integral part of heat exchangers, boilers and steam generators. These frequently used systems are developed to transfer heat between two or more fluids. They are widely used across many industries most predominately in power plants, chemical plants, petrochemical plants, petroleum refineries, among other.

Heat exchangers, boilers and steam generators have a heightened risk of fatigue failure due to their long lifecycles and considerable constant use. These failures can place employees at risk and cause costly plant and refinery shutdowns. Acuren experts can help you avoid these risks and protect your assets with our advanced inspection programs.

Failures in the equipment is often caused by the tube to tube sheets experiencing a fatigue failure in the welded joints of shell tube. These failures are caused by defects at the welded joints or unsuitable expansion to the formation of initial cracks or resonant vibrations.

The inspection of the service exchanger systems requires a percentage of seal welds examined. Inspection should be conducted at both new manufacture and reconditioning periods.

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REPLACING TRADITIONAL FILM METHOD

Inspection of tube sheet welds has long been an industry challenge with no real volumetric inspection methods that are efficient or reliable. The current method for inspecting tube to tube sheets if at all is completed through conventional RT methods, this process is slow and often low quality.

Acuren's experts use advanced digital radiography methods that allows unparalleled increased productivity when compared to traditional methods. Our customized technique paired with our advanced software provides unparalleled results and clear digital images. Our subject matter experts meet all system manufacture training requirements, ensuring your equipment is in the right hands.

Our inspection of tube to tube sheet is done on welded joints of tube bundle heat exchangers, boilers, or stream generators. Our advanced inspection can occur post-manufacturing as well as in-service.

Acuren advanced inspection program outperform the competition and provides reliable proven results to help you make the best decision whether equipment meets standards, needs repairs or replacement.

> INCREASED QUALITY AND PRODUCTIVITY WITH ADVANCED TECHNOLOGY



WHY ACUREN?

Acuren is the leader in this technology in North America being the only service provider.

- Increased production efficiency vs conventional methods
- Significant cost and manpower savings:
 - Increase in production efficiency vs conventional
 - No consumables (no film, no chemistry, no environmental issues)
- Uses no radioactive isotopes, so handling of hazardous material (storage and transportation of
- permanent radioactive source) is eliminated
- Smaller restricted access area no disturbance of production processes during manufacturing or shorter shut-down times
- Increased sensitivity better quality images
- Computer-aided evaluation and documentation
- Inspection results instantly known



www.acuren.com info@acuren.com CONTACT OUR EXPERTS TODAY

In F BEYOND INSPECTION