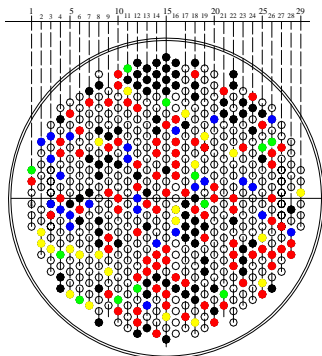
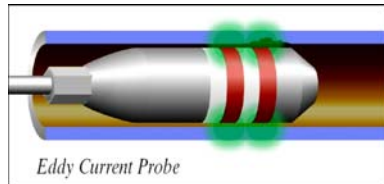


EC-RFT Rapid Tube Inspection

Rapid Non Destructive (NDT) inspection of tubes can be performed using electromagnetic (Eddy Current, ET or Remote Field, RFT) methods applicable to a variety of tubing applications such as heat exchangers, furnaces etc in various types of industries. Typically it provides graded tube layout depending on the total percentage loss of material on each tube wall and the results are color coded for easy reference. The technique used depends on the tube material.

Non-ferromagnetic (with ET)

On non-ferromagnetic tubes the Eddy Current (ET) method is used by inserting an EC probe from one end of the tube and mechanically moving it along the entire tube length. The method inspects the straight section of the tube and provides results as percentage of total tube material loss (e.g. 20-40%, 40-60% etc) per tube. It is capable of finding general or local material loss, pitting, cracking and dents on the inspected tube area.



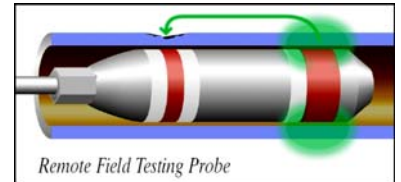
Reporting method with color coding for material loss.

Characteristics of the ET technique

- High speed method. Inspects 500-800, 10m tubes per day.
- 100% inspection of the tube.
- Little surface preparation (cleaning).
- Color coded reporting for convenient results overview.

Ferromagnetic (with RFT)

On ferromagnetic tubes the Remote Field (RFT) method is used by inserting an RFT probe from one end of the tube and mechanically moving it along the entire tube length. The method inspects the straight section of the tube and provides results as percentage of total tube material loss (e.g. 20-40%, 40-60% etc) per tube. It is capable of finding general or local material loss and cracking on the inspected tube area. It is not suitable for finding pitting.



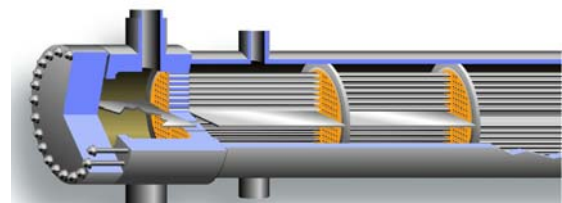
Characteristics of the RFT technique

- High speed method. Inspects about 200, 10m tubes per day depending on frequency.
- 100% inspection of the tube.
- Little surface preparation (cleaning).
- Color-coded reporting for convenient results overview.

Additionally, both methods provide permanent inspection data recording and storage for future reference. Within the framework of Envirocoustics' quality control system, apart from the quality control documents, test data integrity is assured and data records and complete technical reports are provided.



Typical tube inspection system



Cut-out view of tubing and baffle plates.