

BOILER TUBES – HEAT EXCHANGERS AIR COOLERS – FEED WATER HEATERS – CONDENSERS

Pan American **ULTAMIRIS tube inspection system** shows you their tube condition.

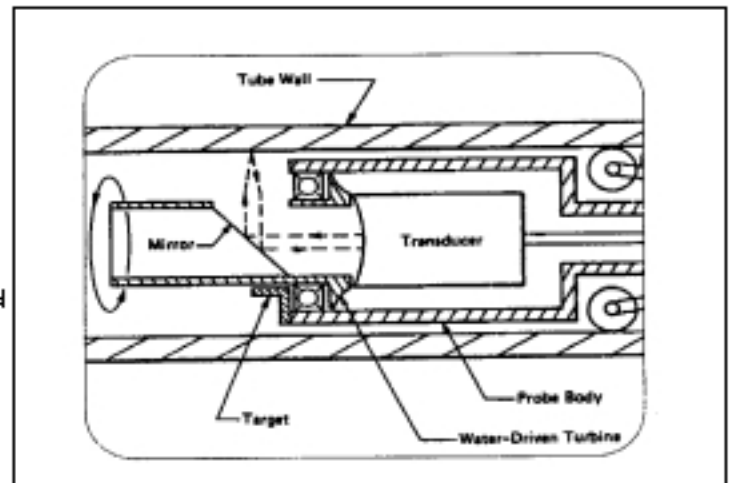
The Equipment: -



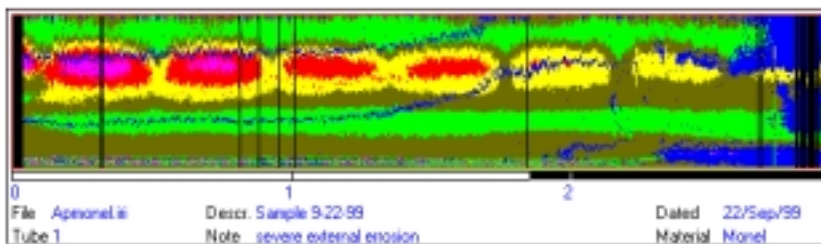
Inspects tubes 8.6mm - 400mm
Inspects ferrous & non-ferrous
Finds wall loss, pits, dents, and bulges
Fretting & holes
Reads down to 0.5mm rwt
Displays 'B' & 'C' scan profiles
Records data to CD-ROM

How it works: -

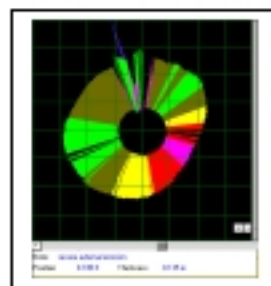
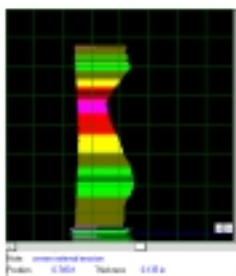
An immersion pulse-echo technique is used. The Ultrasonic transducer is housed in a turbine head With a rotating 45° mirror. The turbine assembly is centered in the tube axis. These pulses are emitted parallel to the tube axis and are reflected by the 45° mirror so that they are directed radially into the tube wall. The reflections from both inner and outer tube wall follow the same path to the transducer. The time interval between the first wall echo (front) and second wall echo, (back) is the measure of wall thickness. As the mirror rotates, the ultrasonic beam sweeps the entire circumference of the tube wall. Turbine speed and PR F are adjustable to allow inspection pulls up to 5m per minute.



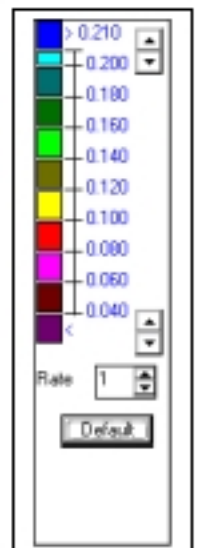
The Display: -



C Scan profile of tubing
Displays thickness color-
code d representations of
the tube



Left: B Scan profiles of one rotation of turbine. Shows regular view and circular display,
Right: Color thickness pallet



Pan American Industries Inc. the pioneer in Ultrasonic Tube Inspection provides services and equipment to clients in the petrochemical, paper, food and utility industries worldwide. Equipment sales, rentals and services are available. For additional information contact

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