



FEATURES

- Designed to inspect:
 - tube and shell heat exchangers
 - air coolers
 - boiler tubes
- Operates in pulse-echo mode
- Measures wall thickness, material loss, and defect orientation

STANDARD INCLUSIONS

- TUA – Turbine heads
 - TUB – Ultrasound transducers
 - TUC – Centering units
 - TUD – Probe cables
 - Accessories
 - IRIS probe spare parts
 - Repair kit
 - IRIS setup cheat sheet (waterproof)
 - Small parts multiple bin box
 - Large waterproof carrying case
- All components are assembled to form the probe assembly. All components are compatible and must be chosen according to tube dimensions.

IRIS Probe and Part Kits

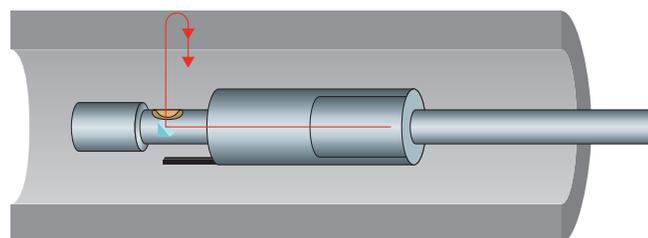
The internal rotary inspection system (IRIS) is an ultrasonic technique well-suited for petrochemical and balance-of-plant (BOP) tube inspections. The technique uses an ultrasonic beam to scan the internal surface of the tube in helicoidal patterns, ensuring that the full length of the tube is tested. Olympus® tube inspection systems monitor the front-wall and

the back-wall echoes in order to measure the tube-wall thickness.

The IRIS probe operates in pulse-echo mode to measure wall thickness, material loss, and defect orientation within the range of 0.5 in. to 3 in. ID. The IRIS probe consists of an ultrasonic transducer firing in the axial direction of the tube. A mirror mounted on a water-propelled turbine deflects the ultrasonic beam in order to obtain a normal incidence wave on the internal wall of the tube. Because the mirror revolves about the axis, the entire circumference of the tube is examined. A complete IRIS probe includes the cable, a centering unit, a turbine, and a transducer.

The equipment was designed for optimum results on various applications: tube and shell heat exchangers, air coolers, boiler tubes, near drum inspections, and crack

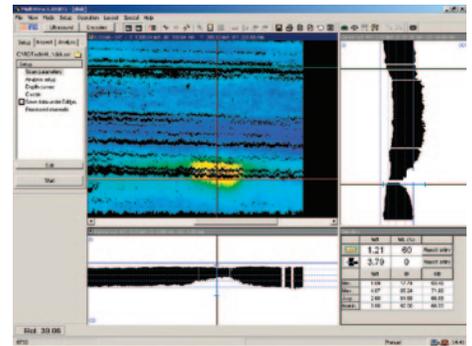
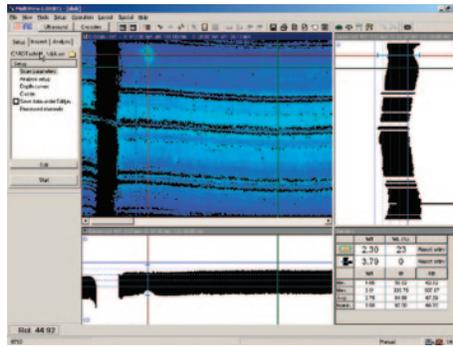
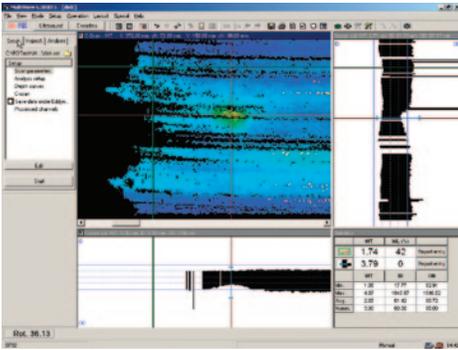
detection. Several individual parts are required to build an IRIS probe assembly. These parts are chosen based on the dimensions of the tubes to be inspected.



ORDERING INFORMATION

Part number	Description	Includes
IRIS-PKG-COMP	Complete IRIS probe kit	All IRIS probes, centering devices, 4 x 20 m IRIS cables and accessories
IRIS-PKG-CS	Small-tube IRIS probe kit	TUA-120, TUB-254-15M, TUC-XS, TUC-SM, and TUD-N20
IRIS-PKG-CM	Medium-tube IRIS probe kit	TUA-170, TUB-381-10M, TUC-MD, and TUD-N20
IRIS-PKG-CL	Large-tube IRIS probe kit	TUA-170, TUB-381-10M, TUC-MD, TUC-LG, and TUD-N20

IRIS SCAN SCREEN SHOTS



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