

EDDY CURRENT TUBE TESTING EQUIPMENT SPECIFICATION (Qty: 01 set)

Tube testing equipment with following added features in a single package with compatible hardware:

1. Eddy Current testing (ECT).
2. Remote Field testing (RFT).
3. Magnetic Flux Leakage (MFL).
4. Ultrasonic tube testing (IRIS).

1. EDDY CURRENT

- Probe inputs 8
- Frequency range 5 Hz - 10 MHz
- Generators / Coil drivers 2
- Generator output / Coil drive Up to 20Vpp
- Injection modes Multiplexed, simultaneous, continuous
- Receiver gain 41 dB range, 23-64 dB
- Data resolution 16 bits
- Acquisition / Sampling rate Up to 50000 sample/s

2. REMOTE FIELD AND MAGNETIC FLUX LEAKAGE

- Probe inputs 4 (Extended ET: 8)
- Frequencies 5
- Frequency range 5Hz - 250 kHz
- Generator / Coil drivers 2
- Generator output / Coil drive Up to 20 Vpp
- Receiver gain 50 dB range, 36 - 86 dB

3. IRIS ULTRASOUND TESTING

- Channels 1, pulse-echo
- Internal pulser / receiver 0-200V drive
0-70 dB (1 dB steps)
- Filters 4 user-selectable filters
25 MHz system bandwidth
- Transducer frequency 5 - 20 MHz
- Digitizer 12 bits, 100 MHz
- Maximum pulsing rate Up to 26 kHz
- Views Real-time A, B and C-scans
- Wall thickness measurement 50 % thinner than competitors (patent pending)
- Turbine speed Up to 100 RPS for fast pulling

4. ECA, TECA AND NFA (Optional)

- Channels 64, 128 or 256
- Frequency range 500 Hz - 4 MHz
- Multiplex SmartMUX™
- Connector Single or double 160-pin array
- External multiplex interface 41-pin Extended ET connector
- Generator output / Coil drive Up to 20 Vpp

5. SOFTWARE FEATURES

- Configuration for tube inspection with conventional probe.
- Simultaneous calibration for all channels and depth curves.
- Wall thickness (%loss and remaining thickness), IRIS, contact measurement mode.
- Wall thickness, ID, OD and color C-scan for circumferential and D-scan for tube axial configuration.
- Microsoft Windows NT, Windows 2000, Windows Xp.

6. PROBES & ACCESSORIES (Optional)

A) BOBBIN PROBES

Sr. No.	Tubes Specification (mm)				Frequency Range (KHz)	Diameter (mm)	Probe Specification			
	OD	ID	Thickness	Material			Type	Qty. Required	Cable Length (M)	Connector Type
1	19	15	2	Duplex DP-12	15-150	11	Super Magnetic Bias	2	20	4 Pin Amphenol
						13		2		
2	31	25	3	Duplex DP-12	10-100	20		2		
	32	25	3			22		2		
3	17	13	2	Carbon Steel	0.1-1	12	RFT (Remote Field Testing)	2		
	27	21	3			20	2			

B) SURFACE PROBES

Sr. No.	Description	Material	Frequency Range	Type	Qty. Required	Connector Type
1	Pencil probe (Shielded)	Fe/NFe	500 KHz	Surface Probe	3	4 Pin Amphenol
2	Pencil probe (Shielded)	Fe/NFe	2MHz		2	
3	Spring Loaded probe	Fe/NiFe	1-100KHz		4	
4	Surface probe 90 degree	Fe/NFe	1-500 KHz		2	
5	Surface probe 90 degree	Fe/NFe	1-100KHz		3	

C) Voice communication system for in-service inspection.

7. DOCUMENTATION

- All related Instruction/ Operation/ Service manuals, Software and Driver CD's in English must be included in the package.
- Calibration/ Qualification certificates of the required items/equipment must be included in the package. Proper and local warranty certificates of the items/equipment/accessories must be included in the package.