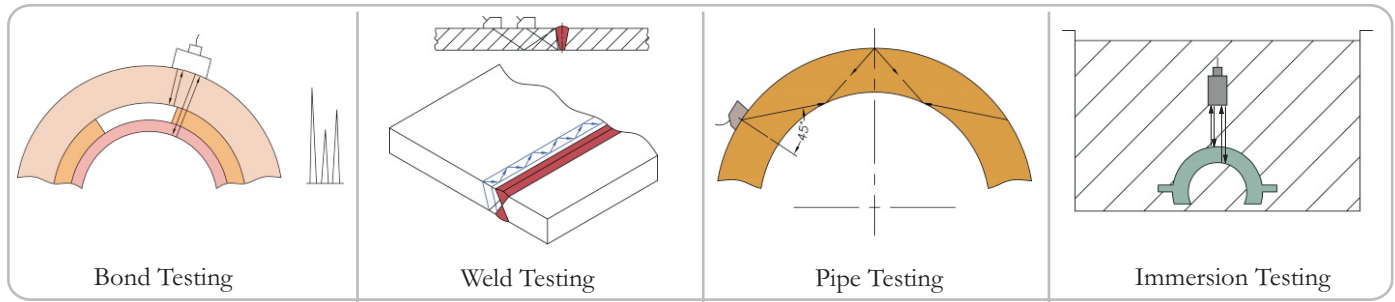


Non Destructive Testing & Material Evaluation

Portable Ultrasonic Flaw Detectors (UFD)

ULTRASONIC TESTING

Among the Non-Destructive Testing methods for Flaw Detection, Ultrasonic Testing is a fast & reliable method. With this one can save on material, labour, machining cost and time by early detection of defects at raw material stage. It also helps to ensure quality and safety. Various materials like metals, glass, plastics, ceramics, etc in cast, rolled, forged, welded forms can be tested for defects like cracks, blow holes, porosity, inclusions etc.



FEATURES OF UFD 4400L & 4444D MODEL

- * Portable, light in weight and user friendly.
- * Wide band amplifier.
- * Meets international standards.
- * TFT Display.
- * Dual Gates with positive/negative logic and threshold setting with alarm
- * Auto/Quick calibration.
- * Video mode, A Scan Freeze, B Scan & PC connectivity in model 4444D.

ACCESSORIES FOR ULTRASONIC TESTING

- * Cables & Adaptors with various connectors.
- * 0° shear wave transducers.
- * Reference blocks conforming to various standards.
- * Transducers in various sizes, types & in frequency range 25 KHz – 25 MHz.
- * Transducers for high temperature application.
- * Search tubes & manipulators for immersion scanning.

MODEL 4400L

UFD 4400L model is a combination of basic and advance technology in ultrasonic flaw detection. It is quite useful for beginners in ultrasonic testing field and building confidence for high end complex ultrasonic testing equipments.

SPECIFICATIONS	4400L
Overall Dimensions (WxHxD)	380 x 280 x 230 mm
Weight	3.85 Kg
Battery Type & Life	Ni-cd batteries, 6-8 hours
Display Type	TFT (100 x 55)
Voltage Supply	7.2V DC (Mains 230V)
Test Modes	Pulse Echo/Through Transmission
Operating Mode	Single/ Double Probe, T/R mode
Range	12 mm- 5 m
Bandwidth	0.5-12 MHz
Sensitivity	140±3dB
Gain Control	103 dB in min 1 dB steps
Horizontal Linearity	±1% of Test Range
Vertical Linearity	±1% of FSH
Delay	0-500 mm in steel
Suppression	0-50 % of screen height
PRF	125- 2 KHz coupled with test range
Pulse Energy Selection	High Energy/ High Penetration(S1/S2)
Ambient Temperature	0 - 50 C°



4400 L

M ODEL 4444D

UFD 4444D is an advance model with latest electronics, TFT display & features like DAC, AVG useful in complex ultrasonic testing applications.

SPECIFICATIONS	4444D
Overall Dimensions (WxHxD)	263 x 170 x 61 mm
Weight	1.9 Kgs
Battery Type & Life	Ni-cd batteries, 8 hours
Display Type	TFT
Voltage Supply	7.2 V DC
Test Modes	Pulse Echo/Through Transmission
Operating Mode	Single/ Double Probe, T/R mode
Range	10mm- 9999mm
Velocity	300-15000 m/s
Bandwidth	0.5-15 MHz
Sensitivity	140±3dB
Gain Control	103 dB in min 0.1 dB steps
Horizontal Linearity	≤ 0.2 %
Vertical Linearity	≤ 3%
Ambient Temperature	(-20 ~ 50)°
Spike Excitation	200 V, 300 V, 400 V, 500 V, 600 V
Pulse Repetition Rate	10 to 1000 Hz
Pulse Width	Adjustable
Damping	68, 130, 500 Ω
Real-Time Sampling	160 Mhz
Rectification	Full wave, half wave, RF
DB step	0.1 dB, 1 dB, 2 dB, 6 dB
Memory	100 channel files/ 1000 A-Scan wave files



4444 D

F UNCTIONS

- ★ Automatically searching the peak wave inside the gate And hold it on the display.
- ★ Equivalent diameter calculation: find out the peak echo And calculate its equivalent diameter.
- ★ Continuous Record: Record the display continuously And save it to the memory inside the instrument.
- ★ Defect Localization : Localize the defect position, including the distance, the depth and its plane projection distance.
- ★ Defect Sizing : calculate the defect size
- ★ Defect Evaluation : Evaluate the defect by echo envelope.
- ★ DAC : Distance Amplitude Correction
- ★ AVG : Distance Gain Size curve function
- ★ Crack measure : Measure and calculate the crack length.
- ★ B-SCAN : Display the cross-section of the test block.

NOTE: Technical specifications are subject to change without prior notice, due to continuous upgradation.

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