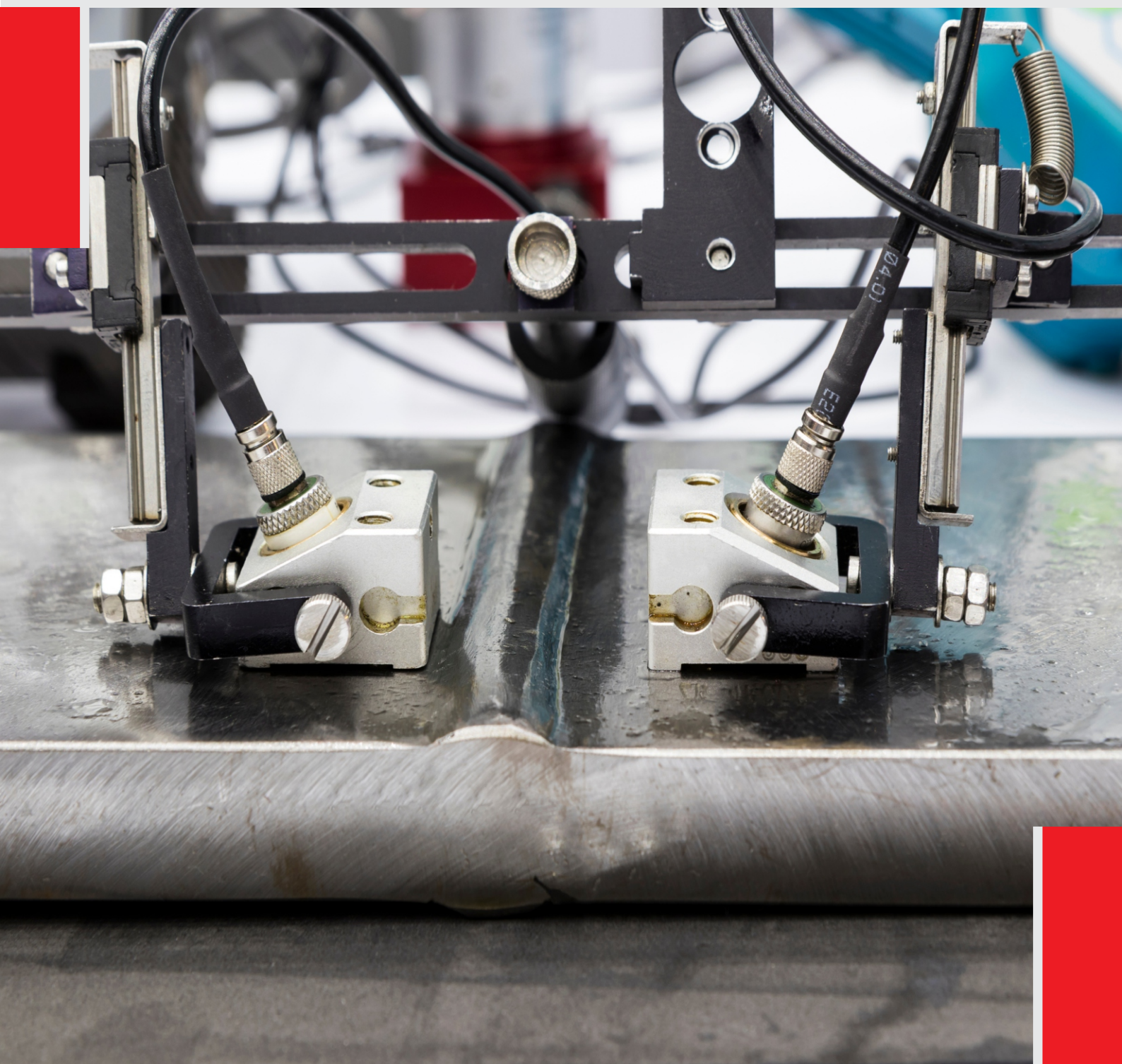


# ***Portable Ultrasonic Flaw Detectors***



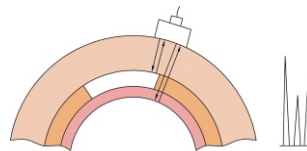
***Non Destructive Testing  
& Material Evaluation***

**POWERHOUSE OF ULTRASONIC TECHNOLOGY®**

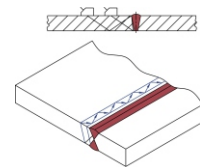


## Ultrasonic Testing Solutions

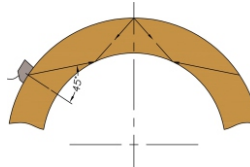
Among the Non-Destructive Testing methods for Flaw Detection, Ultrasonic Testing is a fast & reliable method. With this, one can save on material, labour, machining cost and time by early detection of defects at raw material stage. It also helps to ensure quality and safety. Various materials like metals,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



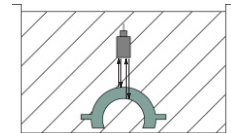
**Bond Testing**



**Weld Testing**



**Pipe Testing**



**Immersion Testing**

## Ultrasonic Flaw Detector 4400L



UFD 4400L model is a combination of basic and advanced 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. Meets International standards & very user friendly. Dual gates with positive/negative logic and threshold setting with alarm. Auto & quick calibration is available in all the models.

## Technical Specifications

Overall Dimensions	380 x 280 x 230 mm
Weight	3.85 Kg
Battery Type & Life	Lithium ion 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 $\pm$ 3dB
Gain Control	103 dB in min 1 dB steps
Horizontal Linearity	$\pm$ 1% of Test Range
Vertical Linearity	$\pm$ 1% of FSH
Delay	0 - 500 mm in steel
Suppression	0 - 50 % of screen height
PRF	125 - 2 KHz coupled with
Pulse Energy Selection	High Energy/ High Penetration
Ambient Temperature	0-45° c

## Accessories For Ultrasonic Testing

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





## Ultrasonic Flaw Detector 4444D

### Technical Specifications

Overall Dimensions	263 x 170 x 61 mm
Weight	1.9 Kg
Battery Type & Life	Lithium ion batteries, 8 hours
Display Type	TFT
Voltage Supply	7.2V DC
Test Modes	Pulse Echo/Through Transmission
Operating Mode	Single/ Double Probe, T/R mode
Range	10 mm - 9999 m
Velocity	300 - 15000 m/s
Bandwidth	0.5-15 MHz
Sensitivity	140 ± 3dB
Gain Control	103 dB in min 1 dB steps
Horizontal Linearity	≤0.2 %
Vertical Linearity	≤3%
Ambient Temperature	(-20 ~ 50)°C
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
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



UFD 4444D is an advanced model with latest electronics, TFT display & features like DAC, AVG useful in complex ultrasonic testing applications. Video mode, A scan freeze, B scan & PC connectivity in model 4444D. Portable light in weight and user friendly which meets international standards. Dual gates with positive/negative logic and threshold setting with alarm & wide band amplifier. Auto & quick calibration is available in all the models.

### Functions

- 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



## Ultrasonic Testing & Inspection Solutions

We have successfully been catering to the needs of various industries.



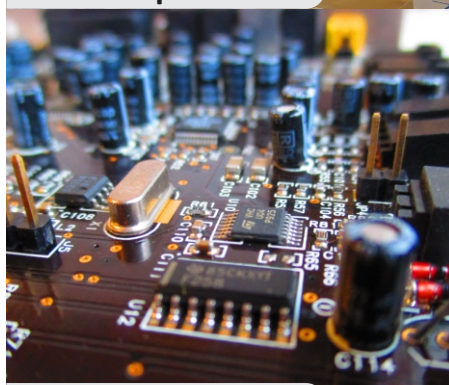
**Aerospace**



**Automotive**



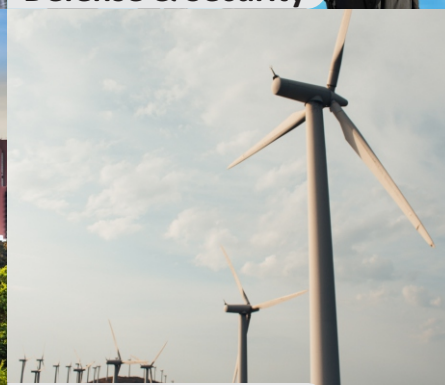
**Defense & Security**



**Electronics**



**Environment**



**Energy**



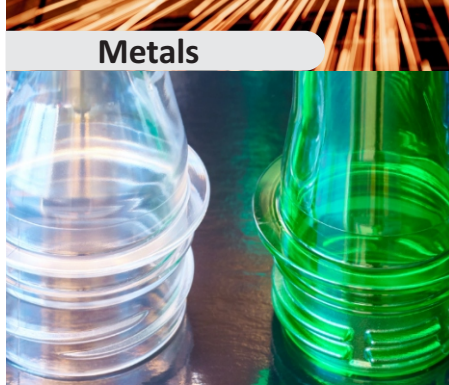
**Metals**



**Mining**



**Oil & Gas**



**Plastics**



**Railway**



**Research**

## ROOP ULTRASONIX LIMITED

Regd. Off: A/41, Nandkishore Industrial Estate, Off Mahakali Caves Road, Andheri (E), Mumbai - 400 093.  
Corporate Office: 803, C Wing, 32 Corporate Avenue, Off Mahakali Caves Road, Andheri (E), Mumbai - 400 093.  
Tel: 022-42111500, Fax: 42111505, Email: [support@rtulgroup.com](mailto:support@rtulgroup.com), Web: [www.rtulgroup.com](http://www.rtulgroup.com)