

Compliance sheet for Portable Digital Ultrasonic Flaw Detector

- Offers without Compliance sheet will not be considered.
 - Mere copy and pasting of specification in Compliance sheet shall not be done.
 - Party has to provide page and paragraph number of product brochure against each complied specification.
- In case it is not possible, party has to provide sufficient clarifications.

Manufacturer's Name with complete Address	
Supplier's Name with complete Address	
Name and model number of proposed Equipment	

Technical Specifications:

Sl. No.	Features	Specification	Compliance/ Clarifications
1.	Display	i. Full VGA Colour LCD ¹ Touchscreen (≥640 x 480 pixels) ii. Screen size ≥ 7 inch iii. Refresh Rate ≥ 60 Hz ² iv. Operation: Touch Screen and keys v. Available views: A, B, C	
2.	Gain Setting	0 to 110 dB ³ , Steps ≤ 0.5 dB or better	
3.	Dynamic Range	≥100 dB	
4.	Velocity Range	1000 m/s to 15,000 m/s or better	
5.	Internal data Storage	≥64 GB	
6.	Time base	i. Range: 3mm to 15 m in steel ii. Delay: -10 μs to 3500 μs	
7.	Weight	≤ 2.5 kg (including Battery)	
8.	Brightness Control	Automatic/Manual	
9.	Transmitter for Pulse Echo mode	i. PRF ⁴ ≥ 10-2000 Hz, Steps 10 Hz ii. Shape: Negative Unipolar iii. Optionally : Square wave Pulser iv. Pulse Width range: 40 to 2500 ns or wider v. Damping : 50 & 400 Ohm	

¹ LCD—Liquid Crystal Display

² Hz—Hertz

³ dB—Decibel

⁴ PRF—Pulse Repetition Frequency

10.	Input/Outputs	i. Probe connector : Lemo 00	
11.	Zoom	Normal A Scan to Full Screen	
12.	Linearity	i. Horizontal $\pm 1\%$ or better ii. Vertical $\pm 3\%$ or better	
13.	Compliance	ISO 22232-1 or equivalent standard	
14.	Environmental Protection	i. IP 67 or equivalent standard	
15.	Language	English	
16.	Operating Temperature	0°C to 50°C or wider	
17.	Operating Modes	Pulse Echo, Dual, Through Transmission	
18.	Frequency Range	0.5 MHz to 25 MHz or better	
19.	Amplifier	Broadband, ≥ 4 Digital Filter Settings	
20.	Probe Delay Range	0 μ s to 750 μ s or higher, Continuously Variable	
21.	Noise Suppression/Rejection	$\geq 80\%$ FSH ⁵ , Selectable Damping Positions	
22.	Signal Formats Display	Full Wave Rectified, RF, Rectified Positive/Negative	
23.	Gates	i. Number: ≥ 2 Independent Gates ii. Size: Compressible to 0.5 mm, Expandable to 100% of the range (time scale) iii. Measurement Modes: flank, peak, zero crossing (before & after), etc.	
24.	Digital Readout	Amplitude, Sound Beam Path/Thickness, Projection, Depth	
25.	Freeze Function	Capable of freezing peak Echo dynamics pattern	
26.	Auto Calibration	Velocity, Probe Zero Adjustment	
27.	Memory	≥ 50 Calibration Settings, ≥ 200 'A' Scan Images	
28.	DAC ⁶	Digital DAC Plotting, Height Adjustable	
29.	DAC Patterns	Peak to Peak, Smooth Parabolic, TCG Activation	
30.	TCG ⁷	≥ 16 points, 100dB dynamic, 90dB/40 ns slope	
31.	Additional Features	DGS Flaw Sizing, AWS Weld Inspection	

⁵ FSH—Full Screen Height

⁶ DAC—Distance Amplitude Correction

⁷ TCG—Time Corrected Gain

32.	Recording	Video Recording Capability for C scan (USB output port shall be present for this)	
33.	Scanning	A, B and C Scan Display	
34.	Data Management	Windows-based Interface Software, USB/RS-232 Ports	
35.	Power	i. AC ⁸ Mains to equipment power cord ii. Rechargeable Battery-2Nos iii. Operation time of each battery: ≥5 Hrs	
36.	Accessories	Protective Leather Case, Rolling Transportation Case	
37.	Upgradability	Software Upgradable	
38.	Holders	i. Detachable magnetic pipe stand ii. Belt holster	

General Terms & Conditions:

Sl. No.	Requirement	Specification	Compliance/ Clarifications
39.	Standard Item	Model from a reputed manufacturer	
40.	OEM ⁹ /Authorized Dealer	The product shall be supplied from either OEM or from the authorized dealer of the OEM (in such case Original authorization certificate shall be submitted along with a technical quote)	
41.	System Type	No assembled/integrated systems shall be entertained	
42.	Installation & Training	Supply, install, commission, and train VSSC personnel for 2 days	
43.	Customer References	List of existing customers in India or two international customer certificates	
44.	After-Sales Service	Service facility in India with trained personnel	
45.	Spare and Service Availability	Minimum 7 years availability, OEM support commitment letter shall be submitted	
46.	Warranty	2 years from installation & commissioning	
47.	AMC ¹⁰	Separate quote for post-warranty AMC	
48.	AMC Scope	i. Number of visits: 2PMV ¹¹ and any number of BM ¹² visits (at free of cost, if required) per year	

⁸ AC—Alternating Current

⁹ OEM—Original Equipment Manufacturer

¹⁰ AMC—Annual Maintenance Contract

¹¹ PMV—Preventive Maintenance Visit

¹² BMV—Breakdown Maintenance Visit

		ii. Annual checks iii. Calibration iv. Software updates (if any)	
49.	Breakdown Response	Attend breakdowns within 2 working days	
50.	Essential Accessories/spare	Quote for all essential concomitant accessories/spare	
51.	Documentation	Certificates of warranty, operational compliance, safety & environmental conformities, operating manual (in English language)	
52.	Compliance Sheet	Detailed compliance sheet with documentary evidence required	

