

**Qualifying Conditions**  
**Digital Ultrasonic Flaw Detector**  
**(Indent No.20133076, Dated 14.10.2013)**

Sl.No.	Technical Parameters	BHEL Specification Requirement	Relevant detail about the offered equipment shall be filled against each row by the bidder.
1.	<b><u>Qualifying Conditions:</u></b>		
1.1		Offer of only those vendors will be considered who have supplied and commissioned at least one similar type of digital ultrasonic flaw detector in the previous five years, in India.	
1.2		A list of customers to whom the similar digital ultrasonic flaw detector has been supplied shall be provided mentioning the model of the equipment and year.	
1.3		Name / Designation of the customer's contact person alongwith the address, contact phone / fax numbers, email address etc. shall be provided.	
1.4		Performance Certificate from at least one of the above customers shall be submitted alongwith the offer.	

- The bidder has to provide relevant technical details about the offered equipment in the column provided in the above table.
- After filling up the same, the bidder has to sign all the sheets of the technical specification.
- Wherever required additional documents /brochure/leaflets may be annexed with the offer.

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 (Ahmeda)  
 DGM (NDT)

Sharma  
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 (Singh)  
 Mgr. NDTL



10.	Calibration Range	upto 1000 mm of Steel (minimum)
11.	Sound velocity Range	1000 metres / second to 15000 metres / second (minimum).
12.	Frequency Range	0.5 to 20.0 MHz (minimum).
13.	Pulse repetition frequency	30 Hz to 1000 Hz (minimum).
14.	Gain	0 to 110 db (Minimum). Minimum gain step 2 dB or less.
15.	Pulse Rectification	Full wave, Positive half wave, Negative Half wave, RF.
16.	Test modes	Pulse echo, Dual, or through transmission.
17.	Gates	Two fully independent Gates.
18.	Pulser	Square wave pulser
19.	DAC setup	Provision for making Distance Amplitude Correction (DAC) curves on the equipment screen.
20.	DGS Evaluation	On screen DGS curve for at least following narrow band, single crystal probes of 2 MHz and 4 MHz frequency, for flaw evaluation, shall be available: 1. Normal beam probes crystal size 24 mm. 2. Miniature Normal beam probes crystal size 10 mm. 3. Angular beam probes (beam angle 45°, 60° and 70°) crystal size 20mm X 22mm. 4. Angular beam probes (beam angle 45°, 60° and 70°) crystal size 8mm X 9mm.
21.	Language and units	Menu language shall be English and Units shall be in SI system.
22.	Operation/ maintenance manual	At least 3 copies to be provided.

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23.	Guarantee	At le 12 months guarantee against manufacturing defects to be provided from the date of commissioning.
24.	Commissioning / training	Equipment is to be commissioned by the supplier at BHEL works. At least two days training to be provided to UT operators at BHEL works.
25.	Operational accessories	<p>A list of spares / operational accessories shall be provided for smooth functioning of the equipment for 5 years.</p> <p>Price of following operational accessories shall be separately quoted:</p> <ol style="list-style-type: none"> <li>1. Spare battery (1 No.)</li> <li>2. 24/ 25 mm crystal dia, 2 MHz, Normal beam probe (2 No.)</li> <li>3. 24/ 25 mm crystal dia, 4 MHz, Normal beam probe (2 No.)</li> <li>4. 8 X 9 mm crystal size, 4 MHz, 45° shear wave, angle beam probe (2 No.)</li> <li>5. 8 X 9 mm crystal size, 4 MHz, 60° shear wave, angle beam probe (2 No.)</li> </ol>
26.	Customer List	<p>A list of customers who have been supplied the offered / similar model, in India, in previous five years shall be annexed.</p> <p>Year of supply and contact details of the customers (i.e. address / phone no./, fax no./ email address etc.) will be provided).</p>

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(Signature)  
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