Annexure-II
To be submitted by the firm along with offer-

Tender specification as per Annexure-I				Specification quoted by the firm	Deviation if any with clarification
TECHNICAL SPECIFICATION FOR LINER AND SLEEVE MULTI- GAUGING SYSTEM. (OUTSIDE POSITION)					
Major parameter	**A. LINER** Air/Electronic Multi-gauging system consisting of	1. (i) Pneumatic arrangement for Component loading, unloading and component locking mechanism.	01 No.		
		(ii) Precision slide, Probe Holding and gauging mechanism with carbide anvil.	01 No.		
		2. Suitable for checking the following dimensions. (i) Liner Inner dia 228 to 229mm at two places (ii) Liner Outer diameters 260 to 261mm at three places.(least count ±1µ)			
		3. (i) Master gauge to provide for above- (ii)Calibrated components to be used for linearity by shed staff.	02 Nos. 02 Nos.		
		4. Marposs Half Bridge Long Body Probe Travel +/-1.0mm H.10(A LR A, 3441564002 or equivalent)	06 Nos.		
		5. Marposs Air/Electronic LVDT Probes.	04 Nos.		
		6. Air/Electronic Transducer Module -110 A with 1.2mt Main Air Supply Hose (1/4"BSP) (With Least Count ±1 µ)	04 Nos.		
		7. Filter Regulator Monogauge with Bracket For use with Air Electronic Gauging	02 Nos.		
	B. SLEEVE Multi-gauging system consisting of	8.(i) Pneumatic arrangement for Component loading, unloading and component locking mechanism. (ii) Precision slide, Probe Holding and gauging mechanism with carbide anvil.	01 No. 01 No.		
		9. Suitable to check following dimension. (i) Sleeve Outer diameters 269mm to 271mm (least count ±1µ) (ii) Sleeve Inner dia meter 260mm to 261mm			
		10. (i) Master gauge to provide for above- (ii)Calibrated components to be used for linearity by shed staff. –	02 Nos 02 Nos		
		11.Marposs LVDT probe with ±2.5mm	04 Nos.		
		12. Marposs Air/Electronic LVDT Probes	02 Nos.		
		13. Air/Electronic Transducer Module -110 A	02 Nos.		

		with 1.2mt Main Air Supply Hose (1/4"BSP) (With Least Count ±1 µ)			
		14.Filter Regulator Mono gauge with Bracket For use with Air Electronic Gauging	01 No.		
	C. Computerized Gauging system TCGS 110016- Marposs compatible	15.a. LVDT probe to Interfacing Specification :- (i)Oscillator Card (ii)Amplifier Card (iii)Demodulator Card (iv)Along to Digital Converter (v)Power Supply	01 Set		
	D. Industrial Cabinet Specification	b. (i) Construction – Heavy Duty – Powder coated steel (ii) Cooling Fans – with Air Filters (iii) Controls–on/off switch and restart button with power indicator. (iv) Colour – Body – Azar Blue texture Front panel Siemens Grey texture (v) Electrical noise Interference shield			
	E. Gauging Table		01 No.		
	F. Customized Software Consisting of	16. (a) Operator Friendly measurement screen with visual display. (b) Facilities to be provided for checking all concern parameters. (c) Inbuilt calibration software (d) SQC Analysis for various Quality Req. (i) Individual/Overall Result (ii) Data collection as per Day/shift/Machine/Operator wise (iii) Real time SPC control charts, X bar R , X bar S charts, Run chart,Histogram, Cp, Cpk details, Normal Distribution charts. (e) Hardware setup/Printer option (f)Backup and real time updation (g)Security system (password protection)	01 No.		
		17.Electronic plug gauge (similar to Bore Gauge) with LVDT Sensor attach to Digital Display System which Should have facility to not only in the reading the size with reference to master dimension but with the help of tolerance lamp to indicate whether the job is within tolerance by indicating with the Green Lamp, in case of out of tolerance by indicating with Red Lamp. 18. Battery digital display unit should be operated with the help of battery so that it will be compact, handy and will not require any electronic input which will make the movement of the operator difficult. The weight of the gauges & the display unit should not be more then 10 Kg.			

		19.Auto switch will have the facility to record all the reading with the microprocessor chip fitted in the display unit & this data will transferred to the electronic interface with the USB port / pen drive & through Wi-Fi card connectivity to the Central Data Processing System kept any where in the shop floor within the range of 1 Km. 20. Central Processing Unit should have customized software for collecting the data from the operator electronic bore gauge so that this data can be used for analysis for SPC, Histogram etc. Laser printer for printing all the data generated.				
Major parameter	**PC** **Hardware**	21. **Specifications (Make: HP or HCL)** • High Resolution 21/20 Inch Flat Panel Widescreen Monitor • Intel Core i3-530 CPU (2.93 GHz) • 2GB DDR3 upgradeable up to 6GB • 500 GB HD • Intel integrated graphics (32MB shared) • DVD drive (read/write) • 15-in-1 card reader • 7.1-channel audio support • 6 USB inputs • 1 x Parallel port • 1 x Serial port • FireWire port • Key Board & Mouse • HDMI/DVI/VGA outputs • Gigabit Ethernet • HP Media Smart software • 1.5 KVA UPS • Ultimate Full Professional Microsoft Windows 07 Licensed version • Latest Microsoft Office Licensed version • Antivirus for 03 years Total Security full protection of Standard/Branded • Make suitable for the above specifications.			01 No	
	Printer	**22. Specifications Detail Laser Jet Colour Printer (Make HP/Xerox/Samsung):** Processor speed: 234 MHz, Print technology: Laser, Number of cartridges: 4, Input capacity, standard: Up to 200 sheets, Connectivity standard: Hi-Speed USB 2.0 port.				
	Environmental Specification	18.i. Operating temperature :- 0^0 – 45^0C ii. Relative Humidity : 5% - 95% @40^0C non - condensing iii. Power supply : 230v, ±5%, Independent with proper earthing iv. Dust,oil and moisture free air supply with input pressure of 3Kg to be provided v. (e) Gauging System should be maintained clean				
Concomitant	(i) Foot Switch /Hand Switch –Heavy Duty				1 Set	

accessories	(ii) Interfacing connections				
Minor parameter	Nil				
Optional accessories	At least one copies of printed original operation and maintenance manuals and minimum one set of soft copy.				
Spares	Set of two years normal maintenance. Spares for Liner and Sleeve Multi- Gauging System. (Outside Position) as per annexure attached				
Training	Firm will trained minimum 04 shed staff during installation free of charge.				
AMC requirement	Not required				
Warrantee requirement	15 months from the date of commissioning & 03 years for PC.				
Special requirement	Payment will be made 90% after successful commissioning and 10% after successfully working for three months.				

SSE **ADME (D)ET**
Sr. DME (D)ET