

Detailed Specifications of Global Tender Notice No: 06/2015

S. NO	TENDER NO.	BRIEF DETAILS OF ITEM(S)	PAGE NOS.
1.	14-VII/GM (2485)15-PB/ T-56	A Robotic Mass Comparator	2-3

Tender No: 14-VII/GM(2485)15-PB/T-56

Technical Specifications of Robotic Mass Comparator

Item	Descriptions	
1.	Automated robotic mass comparator for mass determination of OIML weights	
	Weighing capacity	5 g
	Readability	0.1 µg
	Repeatability	1 mg to 1 g : 0.2 µg or better and > 1 g to 5 g : 0.4 µg or better
	Electrical weighing range	3.5 g or better
	Linearity	± 4 µg or better
	Stabilisation time	20 s or better
	Magazine positions	36 positions or higher
	Electronics, controller	With RS232/USB connection needed
2.	Special requirements	
	Subdivision method	Prior to mass comparison, the robot will automatically select and prepare the group of weights as per weighing design
	Eccentricity errors	0.25 µg/mm or better
3.	Requirements of power supply	
	Voltage	220 V AC ± 10 %
	Frequency	50 Hz ± 5 %
4.	Software requirements to operate and control the test and reference weights, setup measurement procedures, weight evaluation, post processing and import/export of data files	
	Reference weights	Define and store reference weights with ID, tolerance and density
	Test weights	Define and store test weights with ID, tolerance and density
	Sensitivity weights	Define and store sensitivity weights with ID, tolerance and density
	Sensitivity check	Measurement procedure with sensitivity check at begin and end
	Measurement transfer	Online transfer of measured data into Microsoft Word & Excel programs as .doc & .xls formats respectively
	Post processing	Built-in system for generated .xls & .doc file
	Language	English only
5.	Laptop for installation of the software and collect data from balance	
	Branded laptop	Compatible to the supplied software with mass comparator with anti-virus for 3 years. Software should be compatible for linking all the mass comparators of any make
6.	Reference standard weights	
	Accuracy class	E ₁ class of weights with calibration certificate from NMI's should be provided for calibration of comparator
7.	Documentation of all system equipment	
	System documentation	Full detailed documentation & instruction manuals are to be delivered of all components mentioned in this document. Repair/trouble shooting manual with all circuit diagram to be provided.

8.	Other requirements	
	Acceptance test	Must be succeeded at least 7 working days after the commissioning of equipment
	Training	Training of complete operation of the equipment at CSIR - NPL site for five staff members for at least two weeks
	Warranty	Full warranty on complete system components for at least 12 months after successful installation
	AMC	Should have provision for comprehensive AMC for all components & spares by a local sales organization for 5 years after expiry of warranty