

17<sup>th</sup> March, 2025

**CLARIFICATION/ADDENDUM "SET 1"**

**KRA/HQS/NCB-029/2024 -2025: SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF ONE (1) SEMI-AUTOMATIC FORCE TENSIONMETER**

Kenya Revenue Authority wishes to inform prospective bidders of the clarifications and amendments for the above tender as detailed below.

S/No	Item	KRA Response
1	Table 1: Technical Specifications - Semi Automatic Force Tensionmeter.	Bidders are notified that Table 1: Technical Specifications for Semi-Automatic Force Tensionmeter has been expunged and replaced with <b>Amended Technical Specifications - Automatic Force Tensionmeter</b> , which is annexed below.

The clarification/addendum forms part of the bidding document and is binding to the bidder. All other terms and conditions of the tender remain the same. You are therefore required to immediately acknowledge the receipt of this addendum.



**Martha Wakio**

**FOR: DEPUTY COMMISSIONER - SUPPLY CHAIN MANAGEMENT**

**AMENDED TECHNICAL SPECIFICATIONS – AUTOMATIC FORCE TENSIONMETER**

<b>SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF AUTOMATIC FORCE TENSIONMETER with standard spare parts and accessories recommended for full integration, operation and application of the system. The installation shall include scheduled training of laboratory staff on standard operation and application of the system.</b>			
<b>S/N</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Bidder's Response</b>
1)	Scope	Automated stand-alone force tensionmeter measures the surface & interfacial tension, density and manual determination of Critical Micelle Concentration for surfactants and emulsifiers, a key criterion in the classification of goods in the harmonized system.	
2)	Device weight	Not more than 12 kg.	
3)	Maximum balance load	5 g and the system must have an integrated balance transport lock	
4)	Weighing resolution	not lesser than 0.01 mg	
5)	Surface tension range	at least 1 – 850 mN/m	
6)	Sample Stage	Motorized with 0.26 $\mu$ m stage positioning resolution	
7)	Temperature control thermostat	-10°C to +100°C	
8)	Measurement	Surface tension and interfacial tension results with the; <ul style="list-style-type: none"> <li>• Du Nouy ring mode available both with Huh-Mason and Zuidema-Waters correction.</li> <li>• Wilhelmy plate mode, with both dry taring and wet taring. Also, stabilization time and surface detection limit in mN/m is adjustable</li> </ul>	
9)	Accessories	<ul style="list-style-type: none"> <li>• Two Pt-Ir Du Nouy Rings</li> <li>• Two Platinum Wilhelmy plate with micro roughened surface</li> <li>• Two Sample vessel, diameter 70 mm</li> </ul>	
10)	Display Type	Integrated LCD screen for displaying measurement options, results and graphs during measurement. Connection to PC for automatic transfer of data. Connection to optional thermal printer for automatic printing of measurement results	



11)	Liquid density determination	Density measurement resolution 0.0001 g/cm <sup>3</sup>	
12)	Software	Readout software for data transfer to PC compatible with WIN 10 or higher	
13)	Electrical power requirements	240V, 50Hz complete with cable and British Standard adapter.	
14)	Warranty period	Full warranty for a period of twelve (12) months after delivery and commissioning of the system. <b>Bidder must provide a valid warranty card.</b>	
15)	Training	The supplier should commit to on-site basic operational training of users after installation.	
16)	Preventive Maintenance	Preventive maintenance and repair of system by trained Service Engineer within the warranty period for manufacturer defects.	
17)	Languages	Operational language <b>must</b> be English and the user manual must be in English	
18)	Location	Kenya Revenue Authority, 4 <sup>th</sup> Floor Times Tower Nairobi.	
REMARKS (PASS/FAIL)			

