

# Ortho Clinical Diagnostics

Unit/Plot No - 810, ILD Trade Centre,  
Sector - 47, Sohna Road, Gurgaon -122001

T: +91 124 4014 832

**To Whom It May Concern:**

## **CALIBRATION CERTIFICATE**

This is to certify that the system maintenance & calibration was performed on date 08 Feb 2021 for the machine, VITROS-250 Chemistry Analyzer, installed at Dr B Lal Clinical Laboratory, Alwar bearing Serial No.27001297

The calibration process includes optics calibration and the performance verification tests as per the manufacturer's procedures.

Validity: Six months for Optics Calibration.

RAVI RANJAN

Service engineer



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## CALIBRATION REPORT

Name of Instrument : VITROS 250  
Serial Number : 27001297  
Installed at : Dr B Lal clinical laboratory, Alwar  
Date of Report : 08/02/2021

### SECTION / TEST

### RESULT

#### SAMPLE METERING

a. Leak Test : PASS / FAIL

SPECIFICATIONS	OBSERVATION
The Dispense Leak Rate must < 0.210 V dc	Pass
The read-to-read leak rate should be < 0.030 V dc	Pass

b. Hysteresis Test : PASS / FAIL

SPECIFICATIONS	OBSERVATION
The Maximum Hysteresis Value must be < 5.0 steps	Pass
Combined Hysteresis values of any 3 consecutive readings must be < 9.0 steps	Pass

*Ravi Ranjan*

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## REFERENCE METERING

a. Leak Test : PASS / FAIL

SPECIFICATIONS	OBSERVATION
The Aspirate Value < 0.175 V dc	Pass
The Ambient Pressure must in range of 2.25–2.75 V dc	Pass
Consecutive reading should not fall > 0.030 V dc	Pass

b. Hysteresis Test : PASS / FAIL

SPECIFICATIONS	OBSERVATION
Mean Value of Hysteresis should be <= 5.0 V dc	Pass
Maximum Value of Hysteresis should be <= 10.0 V dc	Pass

## IMMUNO WASH METERING

a. Leak Test : PASS / FAIL

SPECIFICATIONS	OBSERVATION
The Aspirate Value < 0.175 V dc	Pass
The Ambient Pressure must in range of 2.25–2.75 V dc	Pass
Consecutive reading should not fall > 0.030 V dc	Pass

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b. Hysteresis Test : PASS / FAIL

Mean Value of Hysteresis should be $\leq 5.0$ V dc	Pass
Maximum Value of Hysteresis should be $\leq 11.0$ V dc	Pass

## INCUBATOR

a. Pad Reflectance Test : PASS / FAIL

SPECIFICATIONS	OBSERVATION
Grand Mean Value must be in range of 0.75 – 0.99	Pass
Range must be $\leq 0.03$	Pass

## ELECTROMETER

a. Basic Mode Verification Test: PASS / FAIL

Parameters	Test 1	Test 2	Test 3	Test 4
Input	Test	Test	Test	Test
Source	Zero 0	Zero 0	Ref 1	Ref 1
Polarity	Neg 0	Neg 0	Neg 0	Neg 0
Ohm -	Low 0	High 1	Low 0	High 1
Ohm +	Low 0	High 1	Low 0	High 1
Read Type	One 0	One 0	One 0	One 0
Specifications	0.0 mv $\pm$ 2.4mv	0.0 mv $\pm$ 2.4mv	-200 mv $\pm$ 8mv	-200 mv $\pm$ 8mv

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## REFLECTOMETER

a. IRIS Adjustment : PASS / FAIL

SPECIFICATIONS	OBSERVATION
Lamp Output range 3.5 to 9.0 across all Filters	Pass

b. Static Test : PASS / FAIL

SPECIFICATIONS	OBSERVATION
All “%CV*K” must be $\leq 18.0$	Pass
All “SD Dark” must be $\leq 1.3$	Pass

c. Interleaved Static Test: PASS / FAIL

SPECIFICATIONS	OBSERVATION
All “%CV*K” must be $\leq 18.0$	Pass
All “SD Dark” must be $\leq 1.3$	Pass

d. Dynamic Test : PASS / FAIL

SPECIFICATIONS	OBSERVATION
All “%CV*K” must be $\leq 18.0$	Pass
All “SD Dark” must be $\leq 1.3$	Pass

*Ravi Rayan*