

NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS

Technical specification of NDD Spirometer with Flowmeter of Pneumotach (14 l/s or more with accuracy 3 %) (EasyOne AIR- Ultrasonic Flow Sensor)

Sl. No.	Specification
1.	Conformity to Standards American Thoracic society (ATS)/ European Respiratory Society (ERS) standards
2.	Conformity to Safety and Quality Standards : USFDA
3.	Certificate Date and Number : 2017-01-05, WO66-G609
4.	Type of Measurable Spirometry and Flow Volume Parameter : FVC,FEV0.5 FEV1,FEF50,FIF 50,FEF75,MVV, FET & MTT), SVC, Maximum ventilation volume (MVV)inspiratory capacity, Expiratory Reserve volume
5.	Should have Pre & Post Broncho dilatation Comparison
6.	Broncho provocation test is needed
7.	Flowmeter: Pneumotach (14 l/s or more with accuracy 3 %)
8.	Level of Resistance should be less than 1.5 cm H ₂ O/L/sec
9.	Parameters should be measured with highest accuracy & reproducibility and should not be affected with high surrounding temperature and humidity levels
10.	Should have Electronic Barometer & temperature sensors, for Automatic BTPS correction
11.	Overlaying of previous test curves for comparison
12.	Should have Real Time Flow Volume and Volume –time Time Traces on Computer screen
13.	Capability to select and modify / add predicted equations
14.	3-litre precision calibration syringe, standard accessories and manual is compulsory
15.	Facility to interface for desktop/laptop computer is mandatory
16.	System Should be supplied with Computer Interfacing package, Cables, Software should be supplied
17.	3-Litre Precision Calibration Syringe, Standard accessories & Manual should be supplied
18.	Availability of Disposable Mouthpieces : 500 Nos
19.	Availability of Pulmonary Filters (100 Nos) with machine
20.	Spare Pneumotach screens supplied : 1 No.
21.	Availability of Nose clips 20 nos and Thermal paper roll-20 nos

22.	Should have a digital display of all graphs and parameters and an alphanumeric keypad
23.	Overall dimensions in mm x mm x mm: 87X155X36
24.	Weight: 0.356kg
25.	Instruction Manuals: 3 set
26.	Warranty : 3Years
27.	Should have test report from central govt/ NABL/ILAC accredited lab covering all parameters
28.	Printing options – Direct to printer or with Easy One connect
29.	Data Management – Easy One Connect HL7, XML, GDT with software
30.	Data links – USB, Bluetooth up to 10000 tests
31.	Age range - Spirometry > 4 years
32.	Dimensions – 87x155x36mm (HxBxT) 356g
33.	Device Classifications – Type BF applied part
34.	Operating Conditions - Temp 0-40 degree C Rel. Humidity 5-90% Athmosph. Pressure 700-1060hPa
35.	Power supply – 5VDC, Standby 0.3W
36.	Exchangeable, 3.6 VDC