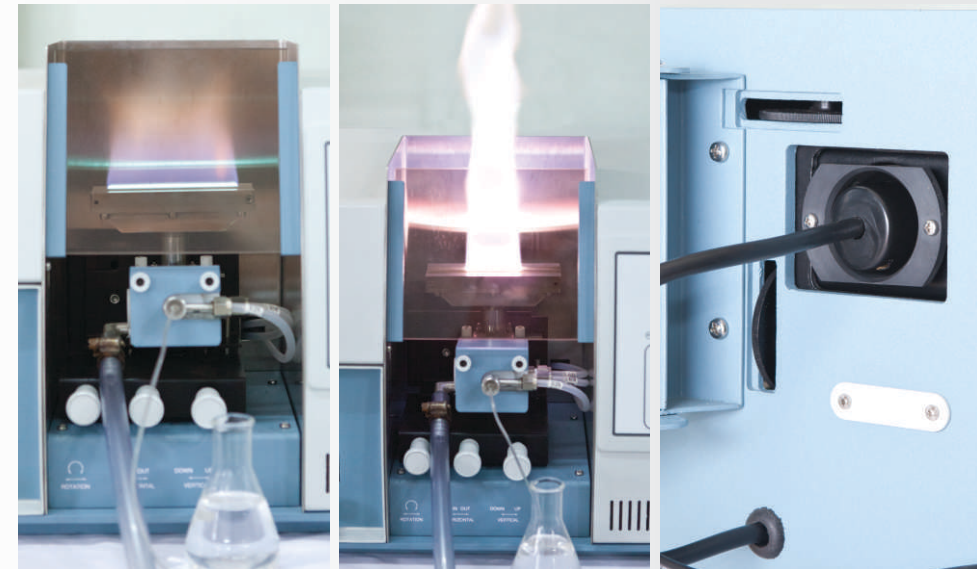




2 line Display



Gas Box

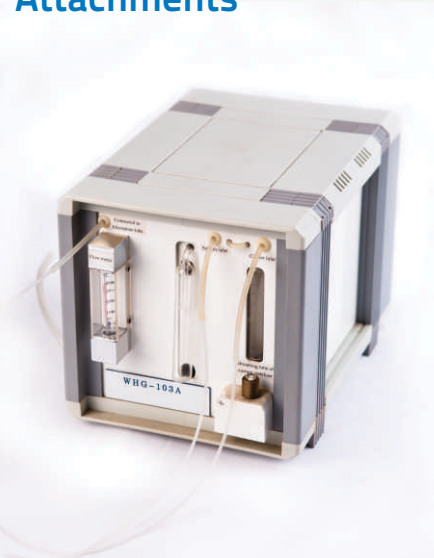


Burner Assembly with Air - Acetylene Flame

Burner Assembly with Nitrous - Acetylene Flame

Lamp Holder

## Attachments




Hydride Generator

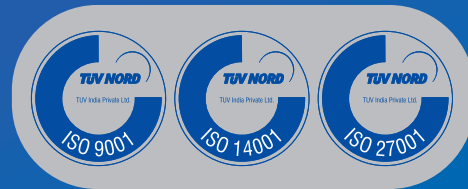
## APPLICATIONS

In the fields of



## Soil Testing

-  MicroNutrients
-  Agriculture
-  Metals
-  Water
-  Mines & Geology
-  Fertilizer
-  Environmental & Pollution
-  Food & Beverages
-  Oil & Gas
-  Pharmaceutical
-  Coal
-  Glass
-  Cement
-  Research
-  Pesticide



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Specifications are subject to change as a process of continual development.

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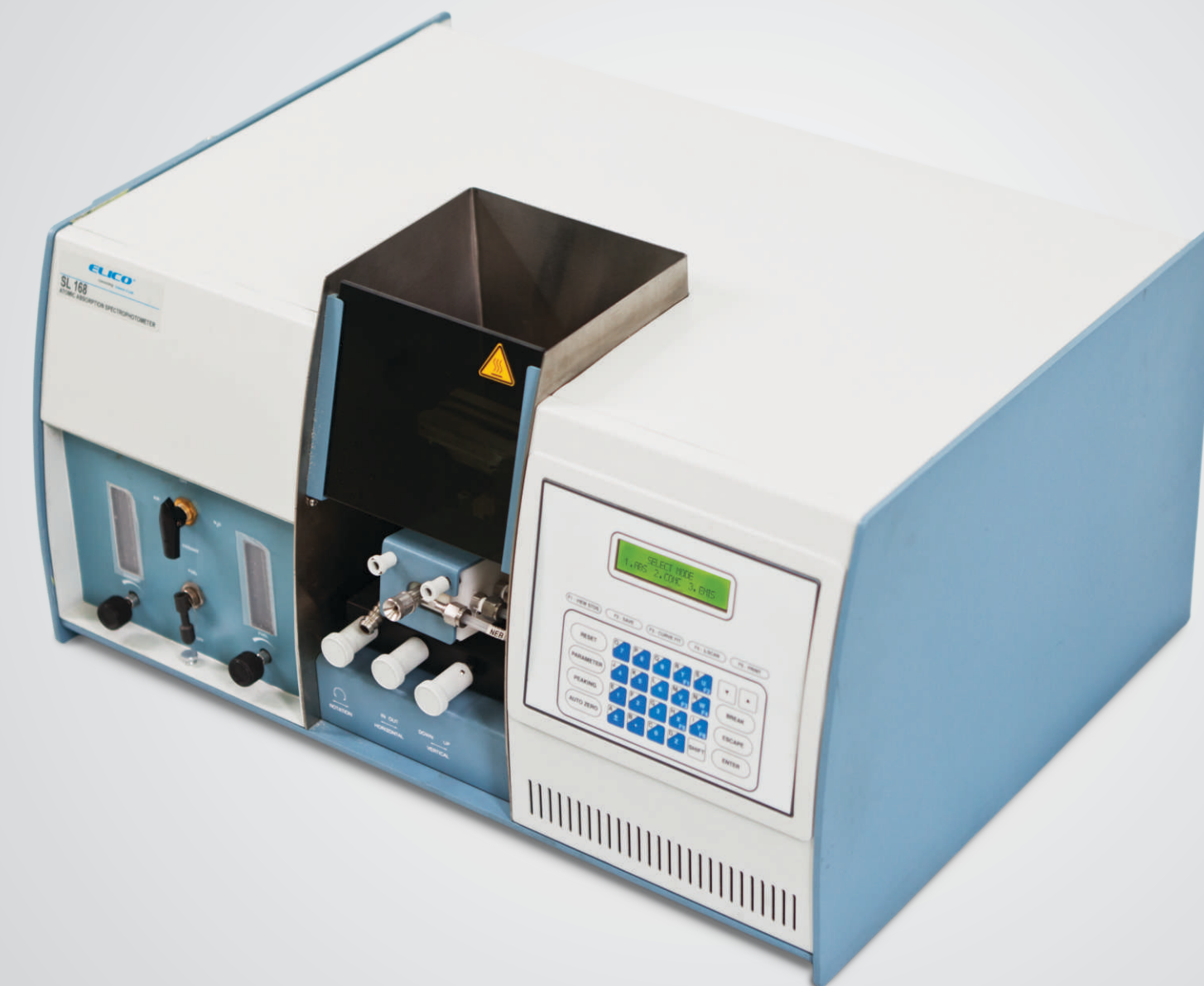
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**ELICO®**  
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ATOMIC ABSORPTION  
SPECTROPHOTOMETER

**SL 168**

PRODUCT SPECIFICATION SHEET







Burner Alignment



LCD Display



Ignition



PC

Two Hollow Cathode Lamps with independent Power Supply.

Self Diagnosis, Automatic Wavelength Selection and Auto scan for Peak Searching.

Automatic Setting of Parameters by selecting the Element.

#### SALIENT FEATURES

- ▷ Microprocessor based, user friendly, Menu driven with printer interface and optional PC attachment through RS232C interface.
- ▷ Narrow Beam Optics fully sealed and Quartz over coated mirrors.
- ▷ Modes of operation include Absorbance, Emission and Concentration.
- ▷ Auto saving of all parameters & Auto-Bandwidth Selection.
- ▷ Integral Gas Control System with panel Flow Meters.
- ▷ Precise Knobs for Vertical, Horizontal and Rotational alignment of Titanium Burner.
- ▷ The Software has facilities to repeat the result of the sample and data treatment.
- ▷ Automatic calculation of percentage and ppm in base material.
- ▷ Absorbance Mode has the facility to measure sample absorbance for selected number of points and to calculate Mean, SD and RSD.
- ▷ Optional PC Compatibility.
- ▷ Microsoft Windows® based software for Data processing, Storage, Retrieval, Interpretation etc.
- ▷ **OPTIONAL** : Hydride Generator

#### SOFTWARE FEATURES

##### Microsoft Windows® based PC operating Software.

- ▷ Easy User Interface.
- ▷ Linear / Quadratic curve equation to predict the sample concentrations.
- ▷ Modes of operation include Absorbance, Emission, Concentration and Standard Addition.
- ▷ Saving facility for the scanned Data.
- ▷ Print facility for all the scanned Data in Graph and Tabular formats.
- ▷ Software is 21 CFR Part 11 compliant with password method protection, Instrument logbook etc.

#### SPECIFICATIONS

SPECTRAL	
Range	185 to 900 nm
Bandwidth	Automatic variable slit from 0.15 to 3.0 nm continuously variable with increment of 0.15 nm
Readability	0.1nm
Accuracy	± 0.5 nm
Repeatability	± 0.2 nm

DETECTOR	
Photo Multiplier Tube (PMT)	

POWER SUPPLY	
HC Lamp	0 to 30 mA modulated
PMT	-200 to -1000 Volts

DATA PRESENTATION	
Display	2 Line 24 Characters Dot Matrix Backlit LCD module
Hard Copy	On printer ( Centronics )

FLOW CONTROL	
Integral Gas Control System with Panel Flow Meters	

FUEL	Acetylene (C <sub>2</sub> H <sub>2</sub> )
------	--

OXIDANT	Air / Nitrous Oxide (N <sub>2</sub> O)
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PHOTOMETRIC	
Range	0 to 2 Abs
Accuracy	± 0.010 Abs at 1.0 Abs
Integration Time	0.04 to 99 sec

LIGHT SOURCE	
Hollow Cathode Lamps (HCL)	

MONOCHROMATOR	
Czerney Turner 300 mm with 1200 lines/mm Holographic Diffraction Grating of High Density Hard Coded Optics	

DATA PROCESSING	
Microprocessor Mode	1. Absorbance 2. Emission 3. Quantitative Curve fit (Linear and Quadratic)
PC Mode	Microsoft Windows® based PC Operating Software with following Operations  1. Absorbance 2. Concentration ( Standard Calibration and Addition), Curve fit Options Linear and Quadratic 3. Emission

BURNER	
Titanium construction, Premix, Laminar Flow 100mm burner for Air - Acetylene (C <sub>2</sub> H <sub>2</sub> ).	
Optional - 50 mm burner for Nitrous Oxide (N <sub>2</sub> O)- Acetylene (C <sub>2</sub> H <sub>2</sub> ).	
The Spray Chamber is made of Inert Material fitted with adjustable impact bead Aerosol.	

NEBULIZER	
Made of fully Inert Material with 90% Platinum and 10% Iridium Alloy Capillary	
SAMPLE FEED RATE	3 to 8 ml/min (Adjustable)

POWER REQUIREMENT	
230 V ± 10% AC, 50 Hz, 1φ, 200 VA Max.	

ACCESSORIES SUPPLIED	
With Instrument	100 mm burner for Air - C <sub>2</sub> H <sub>2</sub> , Nebulizer with SS Capillary, Oil free Air Compressor with 100% Dustfree Air Filter, Acetylene (C <sub>2</sub> H <sub>2</sub> ) Regulator with Flashback Arrestor.
At extra Cost	50 mm burner for N <sub>2</sub> O - C <sub>2</sub> H <sub>2</sub> , Nebulizer with Pt - Ir Capillary, N <sub>2</sub> O Regulator, Nitrogen Regulator, HC Lamps for desired Elements , Hydride and Cold vapour Generator, Printer, PC Software, Computer, Exhaust Fumehood Chamber, Servo Controlled Voltage Stabilizer of suitable rating, Acetylene Gas Cylinder, Nitrous Oxide Gas Cylinder and Nitrogen Gas Cylinder.

PHYSICAL DIMENSIONS	
Size ( WxDxH) in mm	700 x 490 x 330
Weight (in kg)	Approx. 50

SYSTEM UPGRADATION	
Instrument can be upgraded to Hydride and Cold vapour Generator	

#### ACCESSORIES



Air Compressor



Acetylene Regulator



Nebulizer



Nitrous Oxide Regulator



Air-Acetylene Flame Burner



HC Lamp (uncoded)



Nitrous-Acetylene Flame Burner