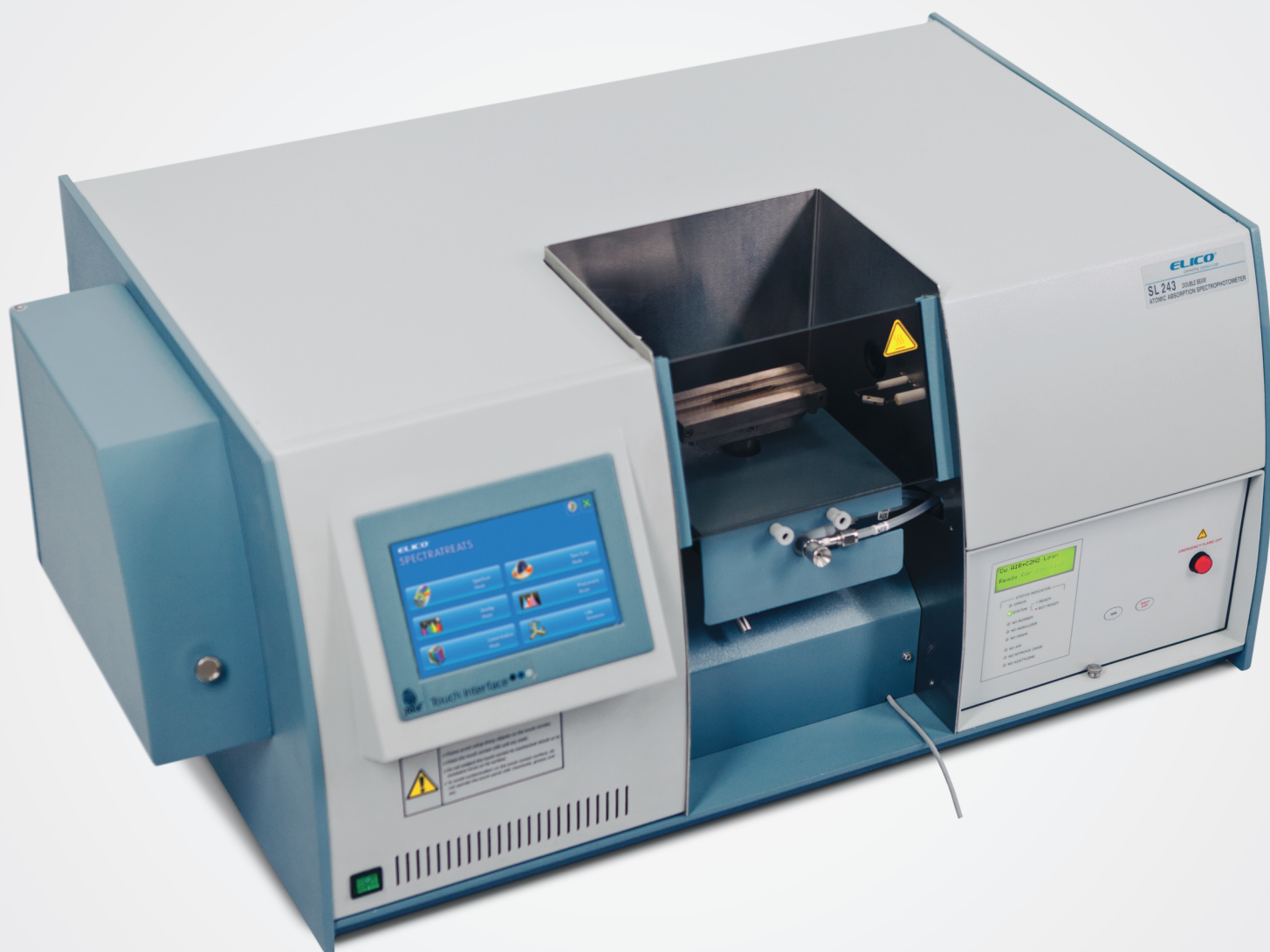


SL 243

PRODUCT SPECIFICATION SHEET

True Double Beam Atomic Absorption Spectrophotometer





Burner Alignment



Double Beam



Touch Screen



Auto Ignition



PC

Built in PC 7" High Resolution Touch Screen LCD Color Graphical Display.

Supports USB-Pen Drive to store/retrieve Mass Spectral Data.

Automated Six or Eight lamp turret compatible to coded & non-coded Hollow Cathode Lamps with independent Power Supply and Alignment for each Lamp.

High Energy True Double Beam Optics with Narrow Beam, fully sealed and Quartz over coated mirrors.

SALIENT FEATURES

- Modes of operation include Absorbance, Emission and Concentration and Standard Addition.
- Background correction with D₂ lamp source.
- Automatic Setting of Parameters by selecting the Element (including Hollow Cathode Lamp).
- Auto Saving of all parameters & Auto-Bandwidth Selection.
- Self Diagnosis, Automatic Wavelength Selection and Auto scan for Peak Searching.
- Integral Micro Controller based Auto Flame control with all safety features.
- Burner Movement through Computer and Manual in all three directions - height, rotation and lateral.
- The Software has facilities to repeat the result of the sample and data treatment.
- Automatic calculation of percentage and ppm in base material.
- Optimization of flame conditions for each element with detachable burner.

- Energy Profile Mode to scan the energy of HC Lamp, D₂ Lamp and Flame.
- Absorbance Mode has the facility to measure sample absorbance for selected number of points and to calculate Mean, SD and RSD.
- Linear / Quadratic curve equation to predict the sample concentrations.
- Saving facility for the scanned Data.
- Print facility for all the scanned Data in Graph and Tabular formats.
- Automatic burner optimization.
- Optional PC Compatibility through USB.
- Microsoft Windows® based software for Data processing, Storage, Retrieval, Interpretation etc.
- **OPTIONAL** : Autosampler Attachment, Hydride Generator.

SOFTWARE FEATURES

- **Microsoft Windows® based PC operating Software.**
- Easy User Interface.
- Flame Control through Software.
- We provide Open Source Software complying International Quality norms, compatible to run on MS- Windows® Platform.
- Software is 21 CFR Part 11 compliant with password method protection, Instrument logbook etc.



Touch Screen Display



Auto Gas Box

APPLICATIONS

In the fields of



Soil Testing



MicroNutrients



Agriculture



Metals



Water



Mines & Geology



Fertilizer



Environmental & Pollution



Food & Beverages



Oil & Gas



Pharmaceutical



Coal



Glass



Cement



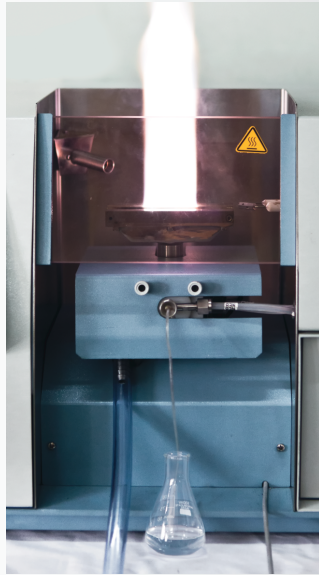
Research



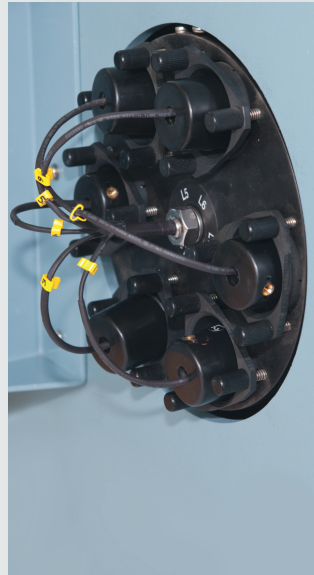
Pesticide



Auto Burner Assembly with Air - Acetylene Flame

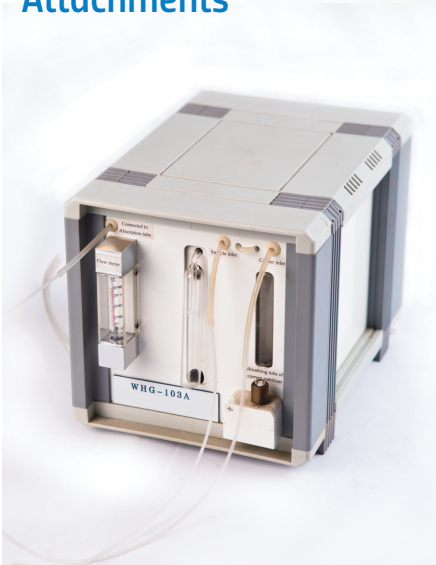


Auto Burner Assembly with Nitrous - Acetylene Flame

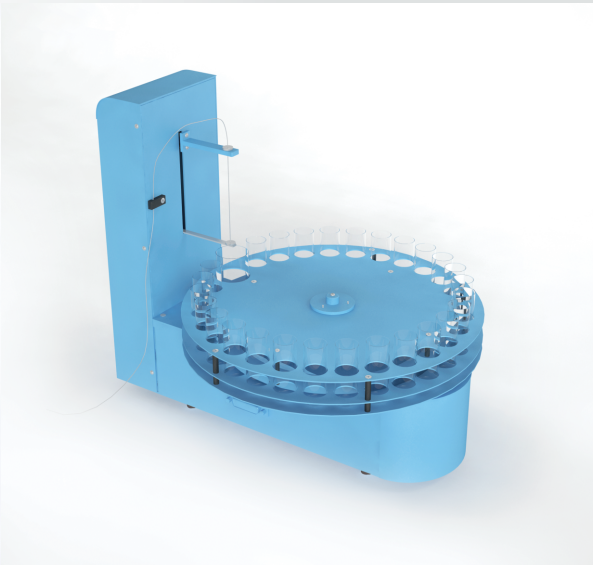


6 Lamp Turret (8 Lamp Turret Optional)

Attachments



Hydride Generator



Auto Sampler

SPECIFICATIONS

SPECTRAL

Range	185 to 900 nm
Bandwidth	Automatic variable slit from 0 to 2.5 nm continuously variable with increment of 0.1 nm
Readability	0.1 nm
Accuracy	± 0.5 nm
Repeatability	± 0.2 nm

DETECTOR

Wide Range Photo Multiplier Tube (PMT)

POWER SUPPLY

HC Lamp	0 to 30 mA modulated
D ₂ Lamp	15 to 300 mA modulated
PMT	-200 to -1000 Volts

DATA PRESENTATION

Display	7" (800X480) High Resolution Graphic Display
Hard Copy	On printer (USB Interface)
Soft Copy	Mass Data Storage through USB Pen drive

FLOW CONTROL

Integral Auto Gas Control System with LCD Display, Keyboard and all Fault Indicators with all safety features

Automatic Flame Changeover, Auto Ignition and Shut Off

Optimization of Flame Conditions for each Element with programmable Flame Control

SAFETY FEATURES

Full Safety Interlocks including Pressure Sensors on both lines, Flame failure Detection, Burner Presence and Recognition, Nebulizer Presence and Drain Sensor, Power Failure Protection and Emergency Flame Shut Off Switch and Flash Back Arrestor on the Cylinder

PHOTOMETRIC

Range	0 to 2 Abs
Accuracy	± 0.010 Abs at 1.0 Abs
Integration Time	0.04 to 99 sec

LIGHT SOURCE

6/8 Lamps Automatic Turret with Independent Power Supply compatible to coded and non coded HC Lamps.

BACK GROUND CORRECTION

Deuterium Lamp (D₂)

MONOCHROMATOR

Czerney Turner 1/3 m with 1800 lines/mm Holographic Grating and Hard Coded Optics.

DATA PROCESSING

Built in Windows® based Operating Software with following modes of Operations.

1. Absorbance
2. Concentration (Standard Calibration and Addition), Curve fit Options - Linear and Quadratic
3. Emission
4. Energy Profile

PORTS

3 USB Ports - Can be used for Printer, Keyboard, Pen Drive and Mouse

TCP/IP Port - Network Connectivity

PC Port - PC Connectivity

BURNER

Titanium construction, Premix Laminar Flow 100mm burner for Air - Acetylene (C₂H₂)

Optional - 50 mm burner for Nitrous Oxide (N₂O) - Acetylene (C₂H₂)

The Spray Chamber is made of Inert Material .i.e., PTFE (Teflon) fitted with adjustable impact bead Aerosol

FUEL

Acetylene (C₂H₂)

OXIDANT

Air / Nitrous Oxide (N₂O)

NEBULIZER

Made of fully Inert Material with 90% Platinum and 10% Iridium Alloy Capillary

SAMPLE FEED RATE 3 to 8 ml/min (Adjustable)

PHYSICAL DIMENSIONS

Size (WxDxH) in mm 822 (+90) x 550 x 395

Weight (in kg) Approx. 70

POWER REQUIREMENT

230 V \pm 10% AC, 50 Hz, 1 ϕ , 200 VA Max.

SYSTEM UPGRADATION

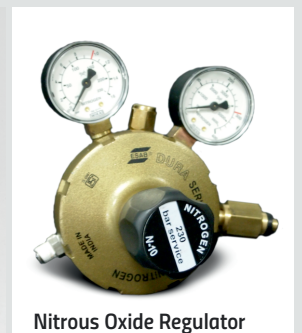
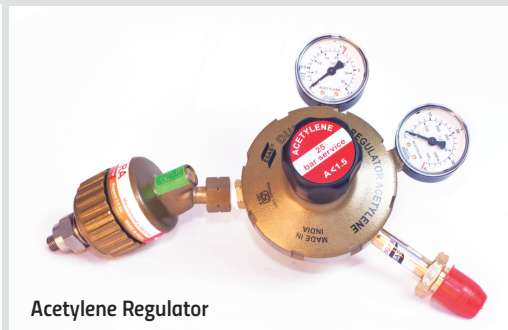
Instrument can be upgraded to Hydride and Cold vapour Generator

ACCESSORIES SUPPLIED

With Instrument 100 mm burner for Air - C₂H₂, Nebulizer with SS Capillary, Back Ground Correction with D₂ Lamp, Oil free Air Compressor with 100% Dustfree Air Filter, Acetylene (C₂H₂) regulator with Flashback Arrester.

At extra Cost 50 mm burner for N₂O - C₂H₂, Nebulizer with Pt - Ir Capillary, N₂O Regulator, Nitrogen Regulator, HC Lamps for desired Elements coded or non coded, Hydride and Cold vapour Generator, Printer, Computer, PC Software, Exhaust Fumehood Chamber, Servo Controlled Voltage Stabilizer of suitable rating, Acetylene Gas Cylinder, Nitrous Oxide Gas Cylinder and Nitrogen Gas Cylinder.

ACCESSORIES



Celebrating 60 years
of our Journey



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B-90, A.P.I.E., Sanathnagar, Hyderabad 500 018, Telangana., India

Tel +91 40 44451234 Fax +91 40 23771639 info@elico.co

Ahmedabad

ahm@elico.co
+91 98241 75321

Bengaluru

blr@elico.co
+91 99000 28741

Bhopal

bpl@elico.co
+91 99930 96876

Bhubaneswar

bbr@elico.co
+91 99371 12105

Chennai

chn@elico.co
+91 98402 65797

Cochin

kel@elico.co
+91 81291 84400

Delhi

del@elico.co
+91 98710 06104

Guwahati

gau@elico.co
+91 91211 77451

Hyderabad

hyd@elico.co
+91 99896 25457

Kolkata

kol@elico.co
+91 91211 77452

Lucknow

lku@elico.co
+91 91980 01666

Mumbai

mum@elico.co
+91 77100 96111

Patna

pat@elico.co
+91 91211 77450

Visakhapatnam

vtz@elico.co
+91 99899 94532

