

GAS CHROMATOGRAPHY AND MASS SPECTROMETER SPECIFICATIONS
ABC: P9,800,000.00

GAS CHROMATOGRAPHY UNIT

Oven Temperature : ambient to 450°C
Sample Injection Unit Temperature: max of 450°C
Injection Port Temperature : max of 450°C
Programmable Temp Ramps : at least 20 ramps
AFC Pressure Range : at least 970 kPa

Column Oven

Temperature range : Room temperature + 4 °C to 450 °C
with a double-jet cooling system
Oven volume : at least 13 L
Temperature accuracy : set value (K) ± 1% (calibration at 0.01 °C)
Temperature deviation : <2 °C max
Temperature variation coefficient : <0.01 °C/ °C
Temperature program steps : Up to 20 (cooling program possible)
Programmed rate setting range : -250 to 250 °C/min.
Total time for all steps : 9999.99 minutes max.
temperature set point resolution : 0.1°C.

Injection Units

Maximum 3 independently temperature controlled injector units

Detectors

Four detectors can be installed simultaneously and individually temperature controlled.

MASS SPECTROMETER

INTERFACE

Type : Direct connection with capillary column
Temperature : 50 °C to 350 °C

ION SOURCE

Ionization : EI (Standard)
Temperature : 140 to 350 °C

Filament : Dual rhenium coil type

Access to Filaments : Front door access for easy maintenance by
the user

Electron Energy : 10 to 200 eV
Electron Current : 1-300 µA

MASS ANALYZER AND DETECTOR

Mass Analyzer	: Metal quadrupole mass filter with pre-rod
Mass Range	: m/z 1.5 to1100
High-Speed Scan Control	: Advanced Scanning Speed Protocol
High-Speed Scan Rate	: 20000 u/sec
Contamination prevention	: Differentially pumped vacuum system With pre-rods
Detector	: Electron multiplier with low noise overdrive lens
Pump	: Turbo molecular pump differential exhaust system
Vacuum system	
Vacuum evacuation	: Differentially pumped system
Turbo molecular pump	: dual-Inlet differential vacuum system
Vacuum control	: Fully Automatic
Column flow	: Up to 15mL/min (EI for He)
Carrier Gas	: Capable of Helium, Hydrogen and Nitrogen

SOFTWARE

Measurement Mode	: Scan, SIM, FASST (simultaneous Scan/SIM measurements)
System Start-up and Shutdown	: Fully-automatic with one-click button
Energy Savings	: Ecology mode
Method Wizard	: Smart SIM (automatic SIM table creation) AART (Automatic Adjustment of Retention Time)
Library Search	: Similarity searches using retention indices Up to 10 libraries can be configured
Instrument Tuning	: Automatic (EI,CI,NCI)
Quality Control	: Accuracy control QA/QC function, instrument control system check function, user control security function
Measurement Data Control	: Optimal compound structure format for GLP
Maintenance Support	: MSNAVIGATOR
Report	: Flexible report creation, templates

AUTO INJECTOR WITH AUTOSAMPLER

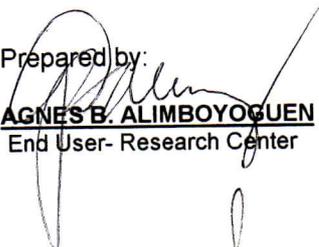
Sample injection method	: Liquid sample injection via special micro syringe and multifunctional auto sampler headspace
Sample volume	: 0.1~8.0µL, 0.1µL steps (using 10µL syringe)
Number of sample injections	: 1~99 injections per sample
Syringe speed	: 2 Modes: Fast and Slow
Plunger speed	: 3 Modes: Fast, Medium and Slow
Type of sample injection	: 3 Modes: Traditional, Solvent Flush And Solvent Flush with a Second Solvent
Injection volume linearity	: ±0.5%

LIBRARIES INCLUDED:

- 1 UNIT NIST MASS SPECTRUM LIBRARY
- 1 UNIT METABOLITES LIBRARY
- 1 UNIT FLAVOUR & FRAGRANCE NATURAL & SYNTHETIC COMPOUNDS GC/MS LIBRARY
- 1 UNIT PESTICIDES & ENVIRONMENTAL POLLUTANTS DATABASE
- 1 UNIT ANALYTIC SOFTWARE
 - Accessories Included:
 - GCMS Columns
 - Micropolar) column [n alkane], 2516[FAMEs] (ID: 0.25 mm, L: 30m)
 - Highly-polar column 1466[FAMEs],1466[FAEEs] (ID: 0.25 mm, L: 30m)
 - Non-polar column (646[n-alkane] (ID: 0.25 mm, L: 30m)
 - 1.5ml Sample Vial Set with cap & septum, 100 pcs/set
 - Regulator for He and Argon Gas
 - SUS pipe for He and Argon Gas, 5 meters each
 - Initial Supply of He and Argon Gas
 - Gas filter
 - UPS 10KVA with 30 minutes back up time
 - Headspace accessories
 - Consumable kit for GC
 - GCMS kit
 - Table for the GCMS
 - Commissioning of exhaust/ ducting system
 - Warranty: 2 years on parts and services
 - PM service: annual PM with replaceable parts
 - Complete PC System, O/S: Microsoft Windows 10, Hard Disk Drive: 1 TB, Monitor:21.5' LED Color monitor, Processor: i5, 4G RAM with Microsoft office
 - Printer with continuous ink.

FREE TRAINING & WARRANTY

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