Auto GDA Series
Automated Graphic Digestion System
# Product Overview

For elemental analysis of samples, traditional manual sample preparation such as electric heating, Plates, poor heating efficiency, high energy consumption, takes long time and a large amount of manual labor, and because of the instability and inconsistency during the heating process, the accuracy and precision are greatly affected by this manual uncontrollably process for the further analysis of AAS, AFS, ICP, ICP-MS.

Raykol’s Auto GDA series are a full-automatic graphite digestion system which can automatically complete acid adding, mixing, capping, program setting temperature digestion, acid elimination and also cooling and constant volume of all the process without person on duty. Up to 72 samples can be processed automatically in one batch. And also the instrument system complies with the international wet digestion method and standards.

## Auto GDA series

Auto GDA -72 Automated Graphic Digestion System
Auto GDA -36 Automated Graphic Digestion System

### Working process

- Adding reagent & Acid
- Mixing
- Capping
- Program Heating (Digestion & acid elimination)
- Constant volume

## Product Features

### Injection system
- Fully enclosed Teflon magnetic mechanical arm, anti-corrosion double peristaltic pump + syringe pump dosing.
- Multiple reagent channels, corrosive reagents can be added (including hydrofluoric acid and hydrofluoric acid solutions).
- Digestion reagent delivery system is resistant to strong acid and alkali, and the liquid addition speed is adjustable.
- Under the same method, the type and amount of acid added can be different for a separate digestion tube.

### Heating system
- Double heating module design, surround heating, program heating and cooling.
- The temperature between the samples is the same, the temperature control accuracy is +/- 0.1°C, and the temperature difference between the holes is +/-1°C at 150°C.
- Intelligent PID temperature control system ensures the stability and accuracy of the instrument.
**Shaking system**
- Digestion tube cap can be automatically added and removed.
- The host is equipped with a digestion pipe rack and a motor lifting system, which can automatic lift and shake.

**Constant system**
- After digestion, the constant system with the ultrasonic sensor will do the constant step automatically at room temperature.
- The volume range from 5 to 50mL.

**Ventilating system**
- The ventilation system is equipped, without taking up the space of the fume hood.
- The Fan and the exhaust pipe is anti-corrosion.
- The HEPA screen filter protects the sample from contamination.

**Easy-operate Graphical software interface**
- The process can be controlled by Pad through Wifi connection and the software with graphical is very easy for operation.
- The data and method can be recorded automatically in the log report and check.

**Other features**
- Different Kinds of digestion tube (PTFE, quartz, PP) can be chosen.
- Colorful indicator helps to identify the statue of the instrument.
- Fully anti-corrosion design, graphite and metal parts are coated by Teflon.

### Application
- Environment: soil, solid waste, filter cartridge, Heavy metal elements in membranes, sewage, etc.
- Food: Heavy metal elements in food, etc.
- Agriculture: heavy metal elements in crops, etc.
- Others: metal dissolution, medical, Petrochemical industry.

### Application Method
- Water analysis (EPA): 200.2, 200.7, 200.8, 245.1 etc.
- Soil analysis (EPA): 3010a, 3020b, 3050b, 3060 etc.
- Coating analysis (GB): GB/T22788-2008 etc.
- Electronics analysis: SJ/T11365-2006 etc.