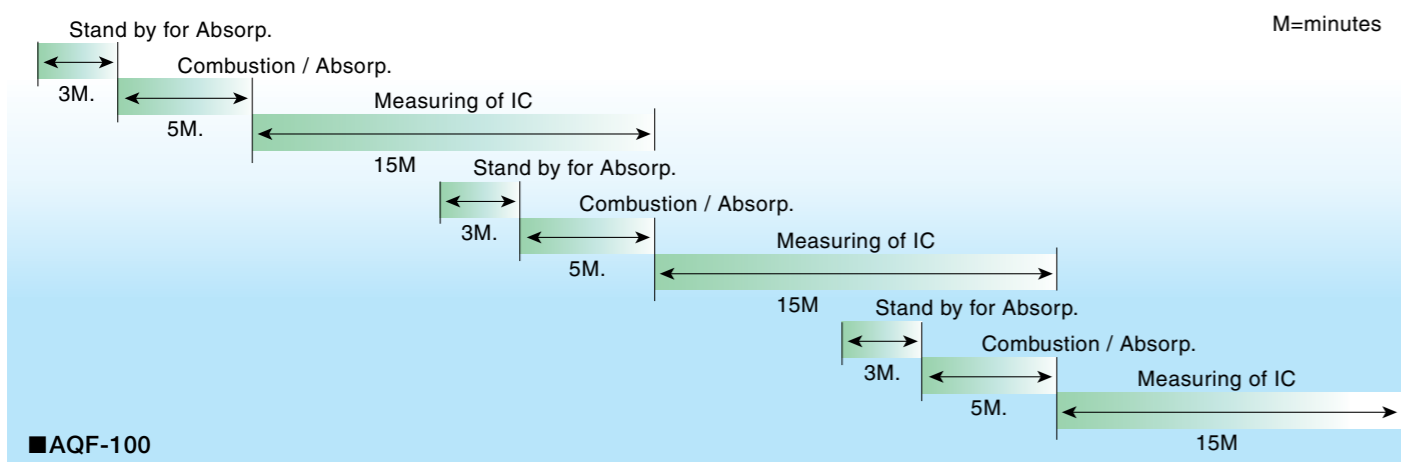


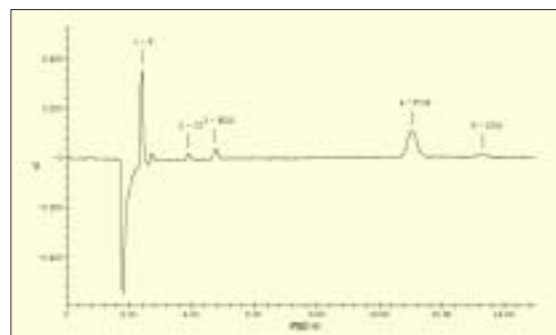
Scheduling
for
operation

AQF-100 can provide the advanced conditioning for "Absorption" or "Combustion and Absorption" while IC is operating. This function effectively minimizes the total measuring time creating a highly efficient operation.



Application

■ Example : Analysis of impure elements.

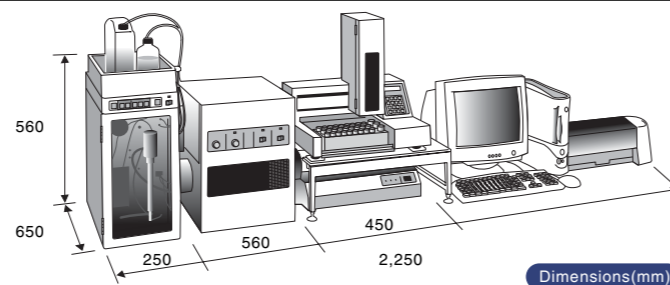


- S.Cl.F.Br. in plastic
- Cl. in Epoxy resin
- S.Cl. in Rubber
- S.Cl.Br. in Industrial Sheet
- Br. in Acrylic polymer
- Cl. in lubricating oil
- F.Br.I. in soil

■ Specifications

Sample introduction method	Automated injection using a sample boat with Auto Boat Controller
Samples	Solid samples and Non Aqueous Liquid samples
Sample size	Solid sample 1 to 100mg Liquid sample 5 to 100μl
Combustion Tube	Quartz
Furnace	Max. 1,100°C/Introduction part and combustion part can be set to different temperatures.
Gas requirements	Argon (purity 99.98% or more, 0.3 to 0.5 MPa) Oxygen (purity 99.7 % or more, 0.3 to 0.5 MPa)
Power supply	AC 100/115/230/240V, 50/60Hz 1000VA
Dimensions	Main Unit : 560(W) x 400(D) x 435(H)mm approx. 17kg ABC : 440(W) x 250(D) x 180(H)mm approx. 11kg

*Ion Chromatography should be prepared by you.



Automatic Quick Furnace

AQF-100

Prep Station for Ion Chromatography

Automated Combustion System speeds up the elemental analysis of Sulfur/ Fluorine/ Chloride/ Bromine/ Iodine in plastics, oils, and waste.



MITSUBISHI CHEMICAL CORPORATION

Instruments Department

370 Enzo, Chigasaki-shi, Kanagawa 253-0084, Japan.

Tel: +81-467-86-3864 Fax: +81-467-86-3862

URL: <http://www.dins.co.jp>

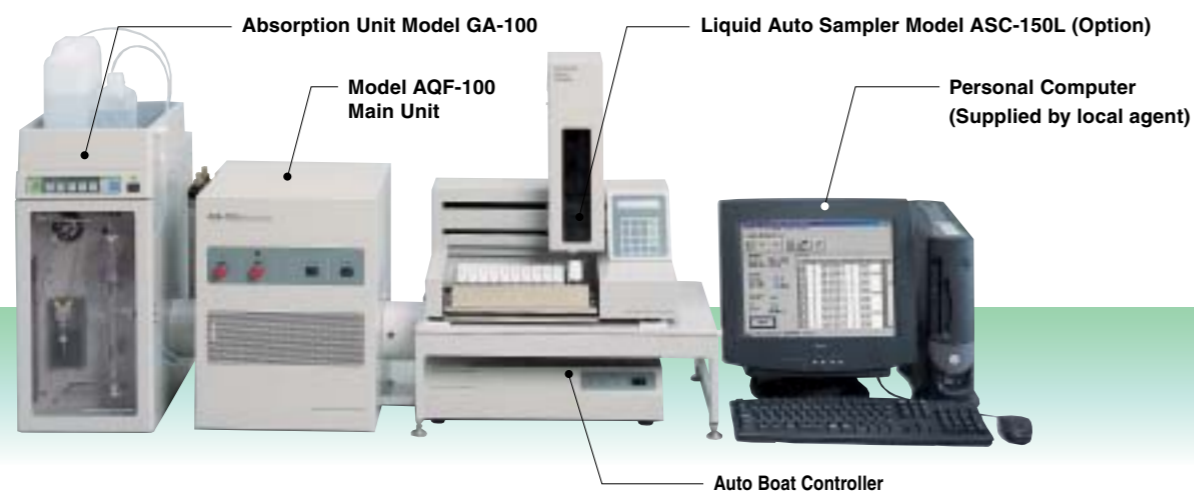
AQF-100 provides easy and accurate conditioning for analysis of Sulfur, Fluorine, Chlorine, Bromine, and Iodine in solid and liquid samples.

Absorption unit GA-100

Features

- Fully automated system: Combustion, Absorption and Injection into the Ion Chromatography are fully automated.
- Quick operation: Combustion system using ABC(auto boat controller) provides quick operation. The repeatable combustion system (you can repeat the combustion several times for one absorption) can accept bigger sample sizes.
- Highly accurate: Systemized absorption unit (GA-100) avoids contamination with the atmosphere.

■ Example of Configuration



Measuring method

After samples are heat digested with the Argon carrier gas, they are burned with Oxygen. Sulfur in the samples changes to SO_x and Halogens turn to Hydrogen Halide and Halogen gas. These elements will be trapped by the absorbent as follows.

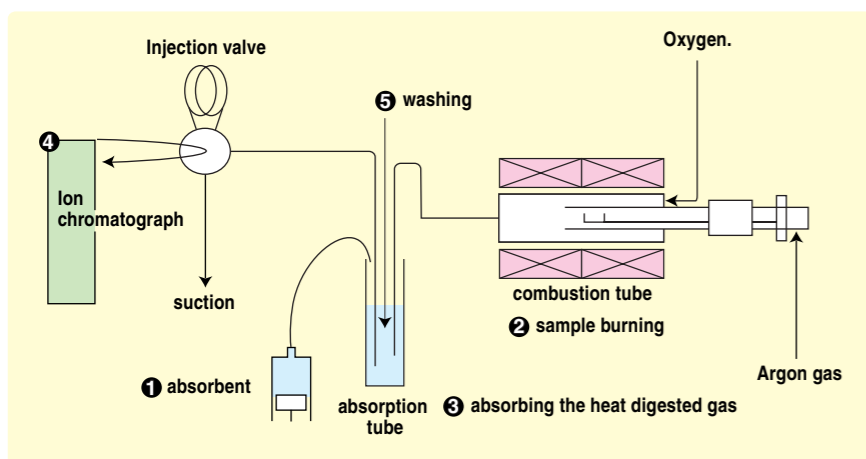
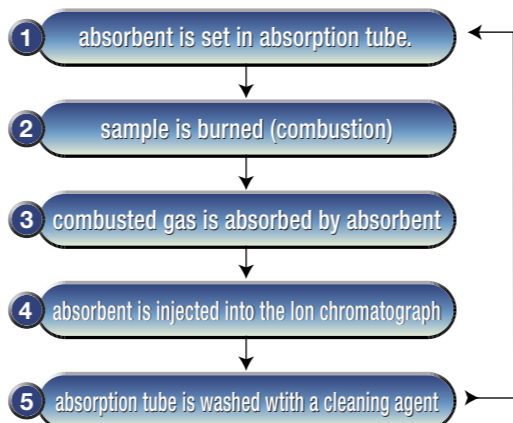
Sample.	In the combustion tube	In the absorbent
Organic Sulfur	→ SO _x	→ SO ₄ ²⁻
Inorganic Halogen	→ HX, X ₂	→ X ⁻

→ Ion Chromatography



Inlet of Auto Boat Controller

■ Process Flowchart



OPTION

■ Liquid Auto Sampler Model ASC-150L



To be used in combination with the Auto Boat Controller (ABC). The Liquid Auto Sampler Model ASC-150L is an auto-sampler in which liquid samples (max. 50 bottles) are injected automatically.

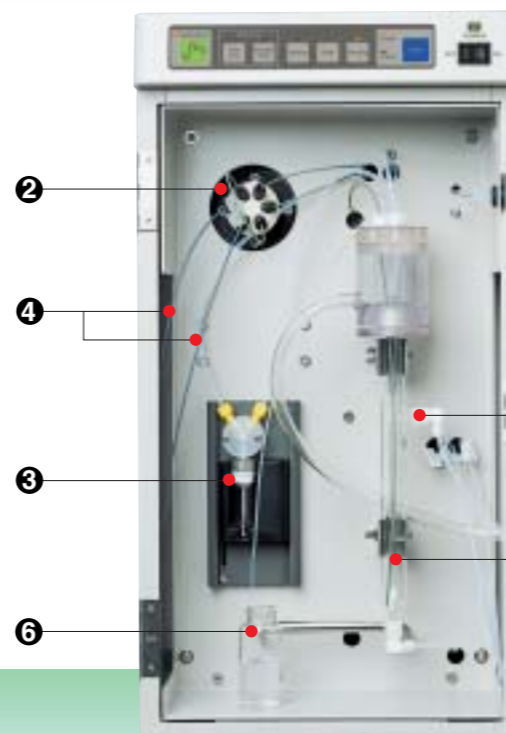
Sample	Liquid samples
Syringe	50µl microsyringe Option: 25, 100µl microsyringe
Sample Vial	6ml/50 places
Rinse Vial	28ml/2 places
Sample Inj. Times	1-30 times/1vial
Rinsing Function	0-5 times
Power Supply	AC 100/115/230/240V, 50/60Hz, 60VA
Dimensions	Approx. 460(W) x 320(D) x 470(H) mm
Weight	Approx. 16kg

■ Solid Auto Sampler Model ASC-120S



Up to 20 sample boats can be set on the table and they can be analyzed automatically. With installation of ABC, the combustion program can be set separately for each sample.

Sample	Solid Samples
Sample Size	Up to 30mg
Sample Boat	20 places Quartz Sample Boat
Sample Introduction	Built-in Automatic Boat Controller (ABC)
Boat Cooling	Peltier Cooler
Power Supply	AC 100/115/230/240V, 50/60Hz, 60VA
Dimensions	Approx. 440(W) x 360(D) x 430(H) mm
Weight	Approx. 20kg



- ① Absorption tube
- ② Injection valve
- ③ Injection pump for absorbent
- ④ Connecting tube to Ion Chromatograph
- ⑤ Introduction of the combustion gas
- ⑥ Introduction for the standard

■ Absorption unit.

Absorption tube	Pyrex 20ml
Six port bulb	Measuring method: loop measurement
Injector	Syringe pump, 5ml Gastight Syringe
Piping	Fluoride Tube and PEEK Tube
Output	Trigger signal to IC (Contact)
Power	AC 100/115/230/240 V, 50/60Hz, 30VA
Dimensions	Approx. 250 (W) x 425 (D) x 560 (H) mm
Weight	Approx. 23 kg