

Solvent Recovery Unit

GAS410

Circulation wind amount	Recovery capacity
0.12 to 0.65 m ³ /min	1,300 mL/h or more

Highly safe N₂ gas sealed circulation system is realized by connecting to a spray dryer unit.



This product is an organic solvent recovery system to be used to prevent discharging to outside, by using in combination with a spray dryer ADL311S-A or GB210-A when either of them uses an organic solvent.

- By combination of a N₂ gas sealed circulation system and a solvent recovery system with a freezer and capacitor, flammable or toxic solvent can be processed.
- Drying of easily oxidized materials is possible.
- This unit supports low temperature drying and available for drying of materials that easily deform with heat.
- Spray drying and recovery of products and solvents are performed with a meticulously devised safety measures.



Example of installation

■ Specifications

Product code		212774	
Model		GAS410	
Solvent recovery system		Capacitor + freezer	
Performance	Circulating gas	N2 gas (sealed circulation when connected to ADL311S-A or GB210-A)	
	Circulating wind amount	0.12 to 0.65m ³ /min	
Configuration	Compressor (for spraying)	Linear compressor integrated	
	Circulation blower	Roots blower	
	Solvent recovery container	2L flask	
	Freezer	Air-cooled condensation full-sealed type: 400W R404A	
	Solvent recovery mechanism	Capacitor cooling mechanism	
	Filter	Cartridge filter	
	Instruments	Cooling trap temperature display monitor	
		Filter differential pressure meter (monitor for clogging of filter)	
		O ₂ density display monitor	
		Blower wind amount adjusting volume	
O ₂ sensor	Solid electrolyte (Zirconium) limit current type		
Pump	For circulation for O ₂ sensor		
Safety unit		O ₂ density meter, flammable gas alarm, electric leakage breaker, N ₂ gas forced introduction (when removing nozzles)	
Standards	External size	W700 x D950 x H1,500 mm	
	Weight	Approx. 130 kg	
	Power supply (50/60 Hz) rated current	AC200 to 240V 5A (15A)	
	Required N ₂ amount	15 L/h at 0.1 MPa	
Accessories		Set of connection parts, anti-seismic clamps, interface cable, sample gas for gas alarm inspection, 2L flask	

■ Control panel



Major control functions and detection function

- (1) Closed system (N₂ gas sealed circulation type)
- (2) O₂ density control function
- (3) Flammable gas detection function
- (4) Inlet temperature overheat detection function
- (5) Outlet temperature overheat detection function
- (6) Other self diagnostics functions

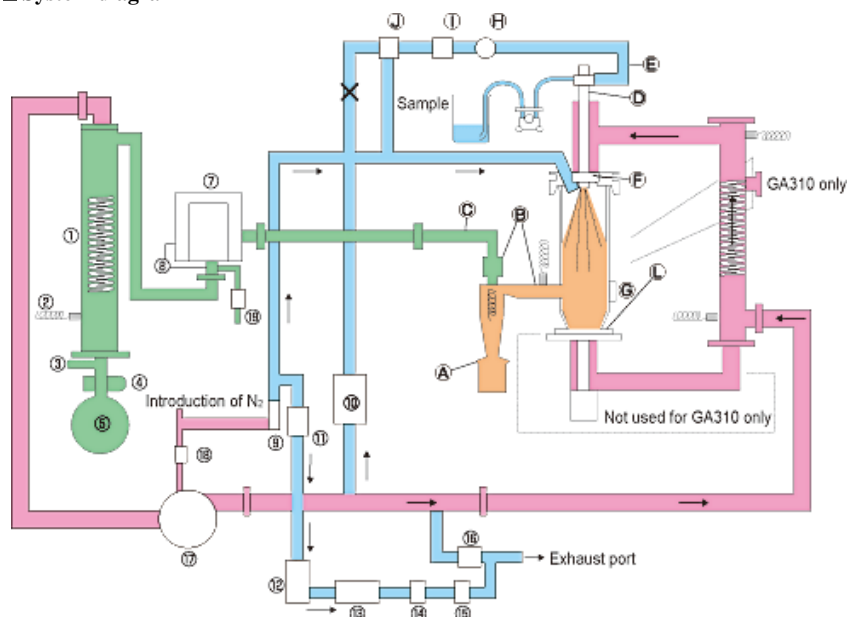
- Detection of temperature sensor disconnection
- Overheat prevention
- Detection of absence of spray nozzle *When an abnormality occurs, the alarm will sound and power supply to the heater and sending of liquid will be stopped.

■ Applicable fields



- Non-oxide ceramics related fields
- Polymer material related fields
- Super conductivity material related fields
- Medicinal product related fields
- Food related fields

■ System diagram



No.	Part name	No.	Part name
(1)	Capacitor	A	O ring
(2)	Sensor	B	Packing
(3)	Ball valve	C	Hose
(4)	Clamp	D	Spray nozzle
(5)	Recovery flask	E	Tube
(6)	Filter element	F	Aluminum honeycomb
(7)	Filter case	G	Cap
(8)	Differential pressure meter	H	Pressure meter
(9)	Flow meter (for introduction of N ₂)	I	Needle valve
(10)	Compressor	J	3-way valve
(11)	Solenoid valve (for N ₂ control)	K	Solenoid valve
(12)	Flow meter (for measuring O ₂ density)	L	Packing
(13)	Filter		
(14)	Pump		
(15)	O ₂ sensor		
(16)	Solenoid valve (for exhaust)		
(17)	Blower		
(18)	Solenoid valve (for introduction of N ₂)		
(19)	Solenoid valve (for air supply)		

■ Connection



Rear of GAS410



ADL311S-A + GAS410 + stand with caster wheels

■ Optional parts

Product name	Product code
Filter element 0.1 μ	212785
Viton packing for cyclone inlet/outlet (1 set of 2 types)	212781
Teflon packing for cyclone inlet/outlet (1 set of 2 types)	212782
* Dry air flow meter (differential pressure type)	212786

Note : The item marked " * " in the column of "Remark" shall be ordered together with the main unit.