

# Solvent Recovery Unit

## GAS410

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

Highly safe N<sub>2</sub> 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 N<sub>2</sub> 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		<b>GAS410</b>	
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 0.65m3/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)
			O2 density display monitor
	O2 sensor	Solid electrolyte (Zirconium) limit current type	
Pump	For circulation for O2 sensor		
Safety unit		O2 density meter, flammable gas alarm, electric leakage breaker, N2 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 N2 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

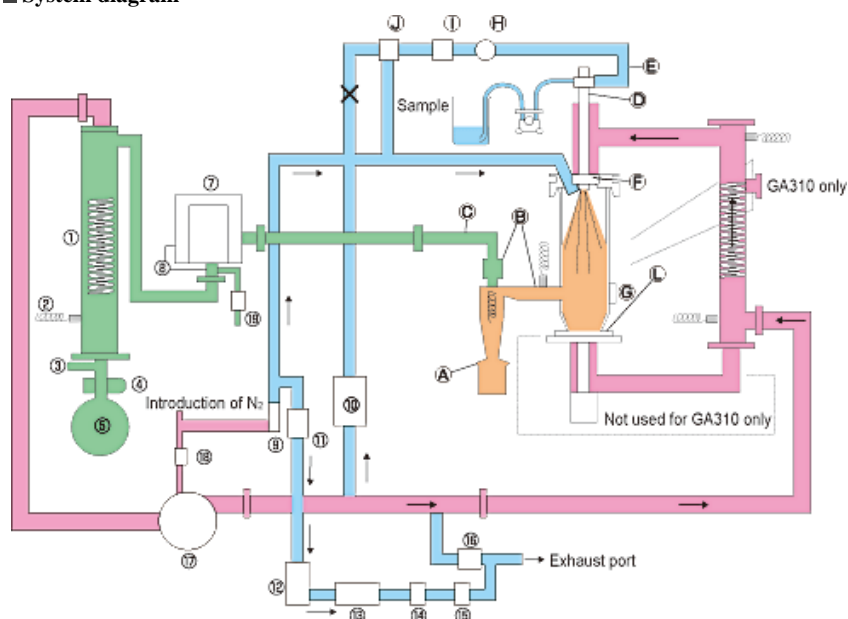
- Detection of temperature sensor disconnection
- Overheat prevention
- Detection of absence of spray nozzle \*When an abnormality occurs, the alarm will sound and power supply to the heater and sending of liquid will be stopped.

## ■ 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 <sub>2</sub> )	I	Needle valve
(10)	Compressor	J	3-way valve
(11)	Solenoid valve (for N <sub>2</sub> control)	K	Solenoid valve
(12)	Flow meter (for measuring O <sub>2</sub> density)	L	Packing
(13)	Filter		
(14)	Pump		
(15)	O <sub>2</sub> sensor		
(16)	Solenoid valve (for exhaust)		
(17)	Blower		
(18)	Solenoid valve (for introduction of N <sub>2</sub> )		
(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 $\mu$	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.