

Spray Dryer

Model ADL310

Water Evaporation

Max.1300ml/h

Operating Temperature Range

40°C~200°C

Liquid Sample Flux

up to 28 ml/min.

Spraying Nozzle

for Liquid and Air

Control Panel



- Inlet temperature, outlet temperature are displayed digitally. Condition setting dials and stage level control switch are located on the front panel for easy use.



- In this Spray Dryer, the sample are dried and transformed into a uniform fine powder of amorphous form, so both its solubility and reactivity are extremely high in comparison to crystal.



The ADL310 is a compact spray dryer using a spray dry method which enables simple use experiments.

- No danger of damaging foodstuffs, medical products and products that are sensitive to biochemical-heat.
- No oxidation takes place and the water content of the formed powders is low, so that there is no contamination.
- Even a solid body of ca.0.5g can be dried.

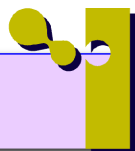


Easy operation and maintenance



- Inlet temperature, outlet temperature and drying air volume are displayed digitally. Condition setting dials and stage level control switch are located on the front panel for easy use.
- Drying chamber, cyclone, product vessel can be easily detached and cleaned.





Spray Dryer

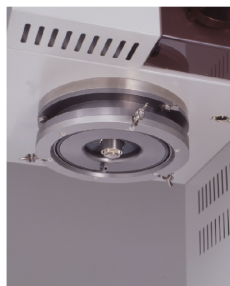


Spraying nozzle

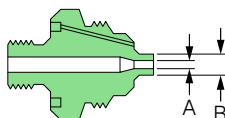
Nozzle size (μm)

Model	1AS	1S	2AS	2S	3S
Nozzle No.	1650	2050	2050	2850	2850
F	A	406	508	508	711
	B	1270	1270	1270	1270
Nozzle No.	64	64	70	70	64
A	C	1626	1626	1778	1778
					1626

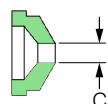
Model 1AS : Standard nozzle



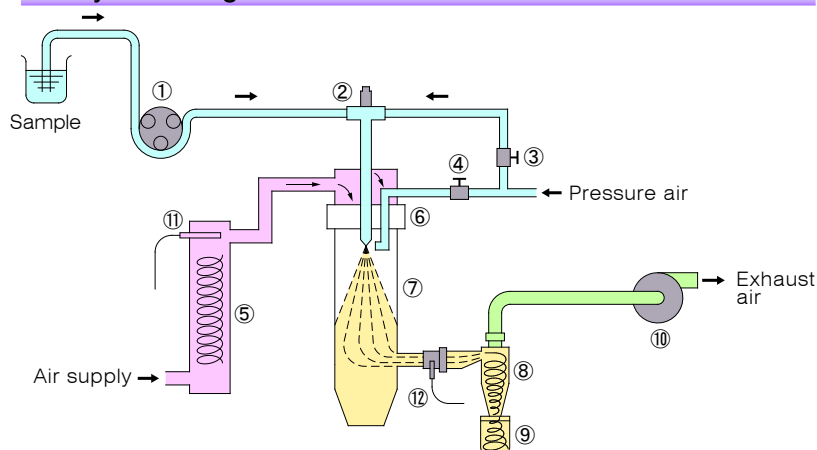
Liquid nozzle (F)



Air nozzle (A)



System diagram



- ① Fluid Pump
- ② Spray nozzle
- ③ Needle valve
- ④ Electromagnetic valve
- ⑤ Heater
- ⑥ Distributor
- ⑦ Drying chamber
- ⑧ Cyclone
- ⑨ Product vessel
- ⑩ Aspirator
- ⑪ Inlet temperature sensor
- ⑫ Outlet temperature sensor

Specifications

Model	ADL310
Performance	
Water evaporation rate	Max. approx. 1,300mL/H
Temperature control range	40°C ~ 200°C
Temperature control accuracy	± 1°C
Dry air flow rate	Max. 0.7m³/min.
Flow rate for Sample liquid feed pump	Max. 28mL/min.
Structure	
Temperature controller	PID Digital temp. controller
Heater	2 kW
Aspirator	Bypass-type blower
Sample liquid feed pump	Quantitative peristaltic pump
Spray pressure gauge	Bourdon tube pressure gauge, measurement range : 0~294 kPa (0~3kg/cm²)
Spray nozzle	Two-liquid nozzle, 1AS
Safety device	
	Self diagnosis functions (Temp. abnormal), Sample feed reversion system, Nozzle orifice cleaning(Pulse jet system, Manual)
Standard	
Power source (50/60Hz)	AC 200/230V, single phase 16.5A/14.4A
External dimensions(W × D × Hmm)	580 × 420 × 1,075
Weight	Approx. 70kg
Accessories	
Sample liquid tube	Silicon tube 3 pcs.