

# Laboratory Spray Dryer

# *L-8i*



**OHKAWARA KAKOHI CO., LTD.**

The L-8*i* has been designed combining our 15 years of successful experience acquired the L-8 spray dryer with the future research requirements in small quantity, high purity, powder production. Many features make it user friendly, easy to clean, and low maintenance. The PLC operating system and touch panel screen increase the user's control and allow continuous monitoring of the system.

# Laboratory Spray Dryer *L-8i*

*For pharmaceutical, biochemical, food, and nano-technology.*

GMP compliance, Validation documentation service available.

3 kg/hr water evaporation capacity at inlet temperature 250°C/outlet temperature 100°C

## Powder purity

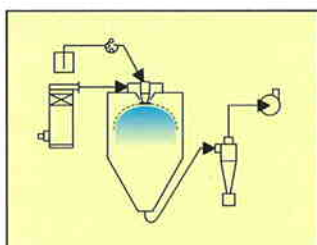
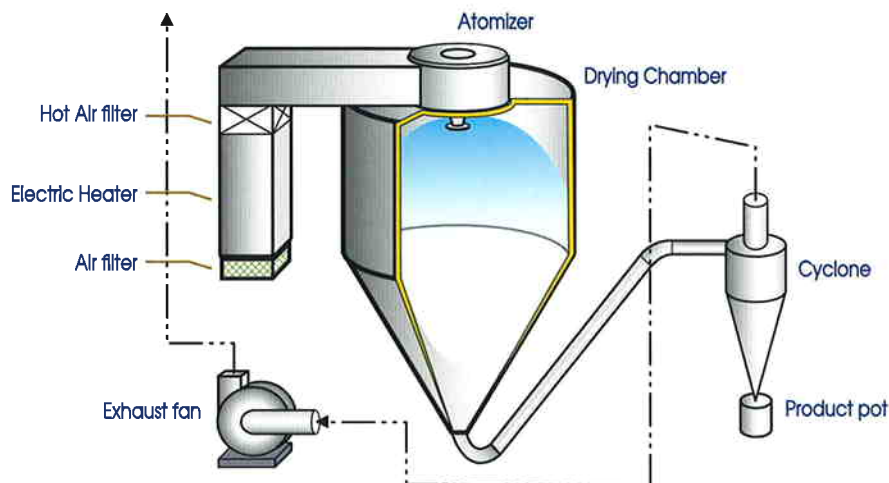
Powder purity is maintained through air filters, the complete stainless steel construction, and through features that allow complete cleaning of the product path. The intake air is filtered before entering the electric heater, and then filtered again through a hot air HEPA filter before entering the chamber. The monocoque stainless construction facilitates keeping a clean working environment.

## Ease of cleaning

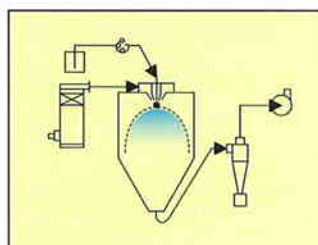
Ease of cleaning is enhanced by several of Ohkawara's features. The inside corners of the drying chamber have been given a generous radius to ensure complete removal of any powder residue. A man-hole door, spanning 120° of the chamber circumference, allows unrestricted access for washing the inside of the chamber. The duct connecting the chamber to the cyclone is short, and disassembles at the elbows with convenient one-hand ferrule clamps.



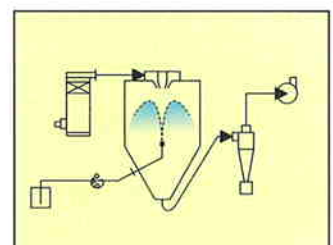
## Choice of three atomizer systems



ROTARY DISC ATOMIZER  
CO-CURRENT(STANDARD)



TWO FLUID NOZZLE  
CO-CURRENT(OPTION)



TWO FLUID NOZZLE  
MIX FLOW (OPTION)

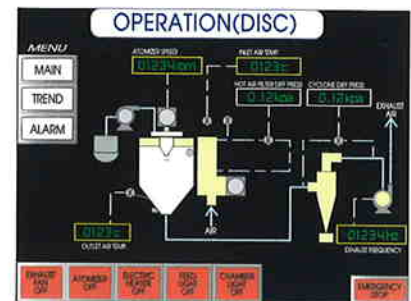
## Consistent atomization

Consistent atomization is maintained by an inverter-controlled motor, which accurately regulates the speed of the rotary disc. A sharp particle distribution is obtained with Ohkawara's patented M-type disc. The sealed bearings in the atomizer require no lubrication, reducing the possibility of contamination.



## Touch Screen PLC Operating System

The touch panel PLC operating system allows the user to control all the system parameters with the touch of a finger. The blower, air heater, atomizer, feed liquid pump, chamber light, and air knocker are operated from this panel. The system parameters, such as hot air temperature, atomizer speed and blower frequency are set by touching the corresponding displayed value, and entering the new value in the set screen that appears.



Two main operating screens can be selected by the user. Depending on the atomization system being used, a screen for operating the rotary atomizer or the nozzle atomizer can be selected.

A data trend screen shows a record of the air temperatures during the experiment. The user can visually see the temperature record and quickly understand it.

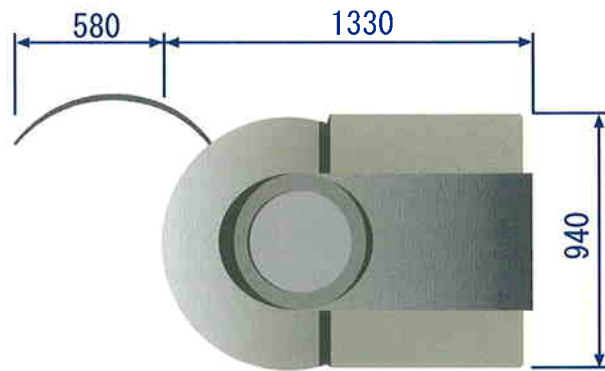
For data analysis, a daily report screen and experiment data can be viewed, with options to save to a compact flash for use in a PC computer.

## Access to only two sides

Access to only two sides of the spray dryer is required for normal operation. The touch panel, chamber inspection window, and product collection pot are located so that all operations are performed from one operating point.



## *L-8i* OUTLINE



Net weight : 500kg  
Measurement : 3.6m<sup>3</sup>



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