



HSL-4

CASCADE REFRIGERATION



**Low
Temperature**



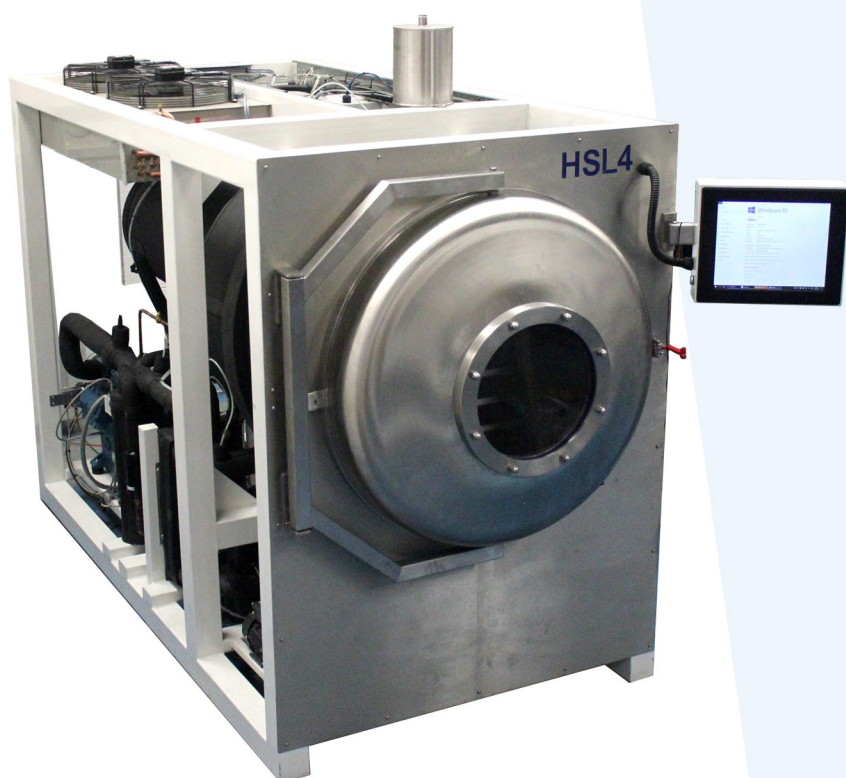
**Shelf
Stoppering**



**Clean Room
Compatible**



**Nitrogen Purge
Optional**



Key Features

H-Series Freeze Driers are the ideal solution for high end pharmaceutical, clean room, pilot & production use.

Our low temperature H-Series range provides the capability to reach temperatures as low as -85°C , as well as features such as advanced temperature, pressure & time control.

The HSL-4 is a general-purpose, high performance pilot unit ideal for drying a variety of products at low temperatures. It is available in a clean room version where the accessible parts are external to the clean room. The HSL-4 is suited for product development & small-scale production.

Technical Data

HSL-4

Ice Condenser Capacity	45kg
Ice Condenser Performance	30kg /24h
Ice Condenser Temperature	-85°C
Defrost	Hot Gas & Electric
Number of Shelves	6+1
Shelf Area	3.4m ²
Shelf Spacing	60mm
Chamber Temperature	-65°C to $+60^{\circ}\text{C}$
Cooling systems	Water or Air cooled
Refrigeration	Frascold Cascade
Unit Dimensions (H x W x L)	2.1m x 1.5m x 1.1m
Refrigerant	R404A & R1150
Vacuum	Pfeiffer Duo 35
Chamber Dimensions	1000mm id x 1000mm
Power Supply	380-415v 32a 3~
Control System	Manual or Automatic Control



Research



Lab



Pharma

FROZEN IN TIME
Manufacturers of freeze driers and vacuum cold traps

