



HSL-1

CASCADE REFRIGERATION



**Low
Temperature**



**Optional Shelf
Stoppering**



Moveable



**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-1 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-1 is suited for product development & small-scale production.

Technical Data

HSL-1

Ice Condenser Capacity	15kg
Ice Condenser Performance	10kg /24h
Ice Condenser Temperature	-85°C
Defrost	Hot Gas & Electric
Number of Shelves	4+1
Shelf Area	0.48m ²
Shelf Spacing	60mm
Chamber Temperature	-65°C to $+60^{\circ}\text{C}$
Cooling systems	Air cooled
Refrigeration	Frigopopul Cascade
Unit Dimensions (H x W x L)	2.1m x 0.8m x 1.1m
Refrigerant	R404A & R1150
Vacuum	Kurt J Lesker RV212
Chamber Dimensions	500mm id x 500mm
Power Supply	380-415v 20a 3~
Control System	Manual or Automatic Control



Research



Lab



Pharma

FROZEN IN TIME
Manufacturers of freeze driers and vacuum cold traps

