



HSLS-4

STEAM STERILISABLE



**Low
Temperature**



**Shelf
Stoppering**



**Clean Room
Compatible**



**STEAM
STERILISE**



Key Features

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

Our steam sterilisable variations provide the capability to reach temperatures as low as -85°C , and sterilise the internal surfaces with 2.5bar of steam pressure at 135°C .

The HSLS-4 is a steam sterilisable, 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 HSLS-4 is suited for product development & medium scale production.



Research



Lab



Pharma

Technical Data

HSLS-4

Ice Condenser Capacity	45kg
Ice Condenser Performance	30kg /24h
Ice Condenser Temperature	-85°C
Defrost	Hot Gas & Electric
Number of Shelves	8+1
Shelf Area	3.8m^2
Shelf Spacing	60mm
Chamber Temperature	-70°C to $+60^{\circ}\text{C}$
Cooling systems	Water or Air cooled
Refrigeration	Frigopopul 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	Automatic Control
Sterilisation Temperature	135°C
Clean Steam Pressure	2.5bar

FROZEN IN TIME
Manufacturers of freeze driers and vacuum cold traps

