

## *FD-5L Vacuum Freeze Dry Machine (lyophilizer)*



Freeze drying or lyophilization could apply to biological, bacteria, pharmaceutical research, development, manufacturing and transport. Lyophilization in the development of biopharmaceuticals revolves around the process of sublimation, by freezing the material and converted ice from a solid phase directly to a gas phase. Freeze drying process could preserve products to stable condition and common uses of lyophilization are seen in the creation and storage of room temperature products. Freeze-dried products with advantage of low moisture, high rate bacteria activity and extended shelf lives benefits a lot for research and manufacturing.

FD-L series freeze dryer, lyophilizer designed for commercial and industrial bulk production, could meet lyophilization process demand in food, pharmaceutical, biological, chemical area, the freeze drying machine with integrated structure and modular systems which is easy maintenance and install, Huayu Brother freeze dryer, lyophilizer provide you the most reliable and stable working lyophilization equipment based on high advanced Ethernet LYO-Controller ,we also accept customized services.

FD-5L is an pilot production freeze dryer design and produce under GMP, Available shelf area 5.25sq.m, 7 shelves, 28 trays and ice capacity 100L in 24hrs, Final vacuum <1Pa.

**Technical Parameters:**

<b>Models</b>	<b>FD-5L (TP, CIP, SIP optional)</b>
Useable trays area	5.25sq.m
Ice capacity	100kgs
Shelves number	7+1
Shelf size	750*1000mm
Shelf spacing	80mm
Material tray size	500*375*20mm
Material trays	28pcs
Shelf temperature	-50°C to +70°C
Ice Condenser temperature	-80°C
Vacuum degree	<1Pa
Power install	30kwh
Install size	4000*1500*2500mm
Vials capacity	φ22 >10700pcs