

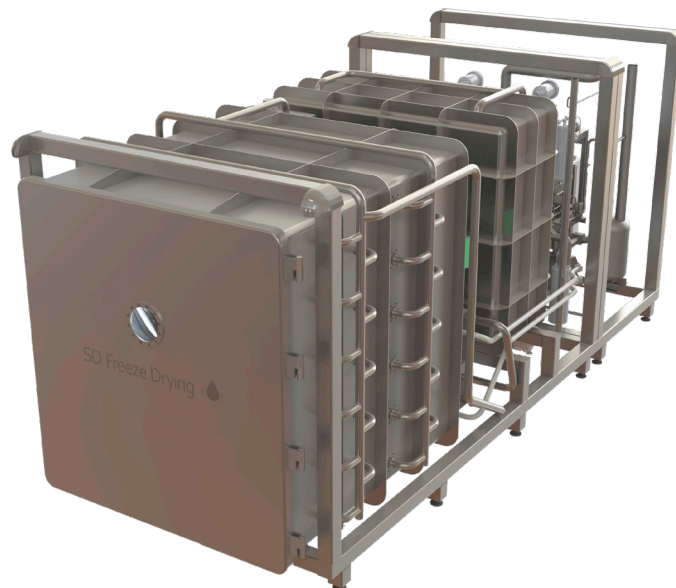
FD500 INSTANT COFFEE

SiccaDania Group

FULL SCALE INSTANT COFFEE FREEZE DRYER

The freeze dryer, type FD500 IC, is a hygienic bulk Instant Coffee freeze dryer with an external condenser which can be isolated from the drying chamber. Heating for sublimation is supplied by an external water heating system, circulation water inside the shelves. The water heating systems secure a uniform temperature gradient and pressure across the entire tray surface area.

The design is optimised for up-scaling and ease of maintenance. The FD500 IC dryer has as an option CIP nozzles installed for full coverage of CIP- liquid. It is manufactured from stainless steel (AISI 316), and all surfaces wetted by CIP-liquid are documented with either 3.1, FDA and/or FCM certificate.



APPLICATIONS

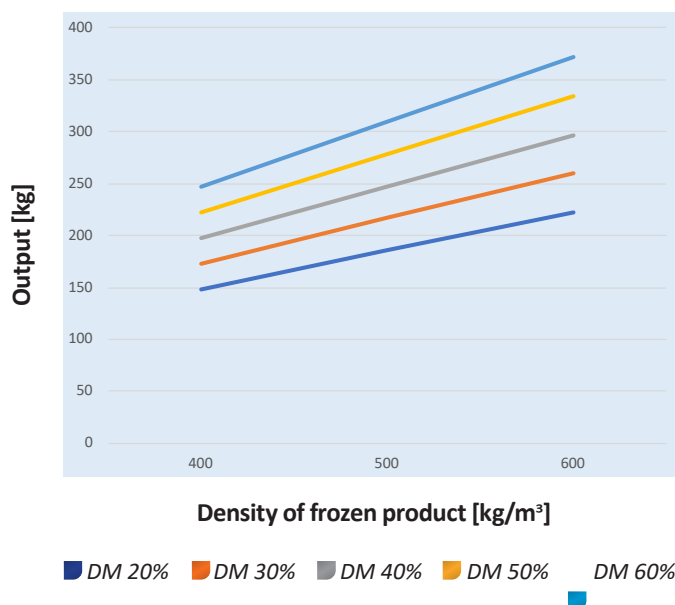
The FD500 IC freeze dryer is designed for drying of food and nutraceuticals - Instant Coffee.

TECHNICAL DATA

Total tray area 27 m ²
Number of trays 48
Input/feed capacity approx. 600 kg (frozen coffee granule)
Cooling coil capacity +500 kg H ₂ O
Maximum sublimation capacity 80 kg H ₂ O/hour
Product contact steel parts AISI 316
Unit dimensions, WxDxH 2,3x5,5x2,3 m



DRIED PRODUCT OUTPUT



FD500 INSTANT COFFEE

SiccaDania Group

BENEFITS OF THE FD500 IC:

Scalability: Optimised flow, pressure and heat input secure a smooth up-scaling from FD30 pilot size to FD500 full scale

Improved cleanability: Isolated external condenser chamber combined with a state of the art general hygienic design, means that the cleanability of the freeze dryer is very high

Skid-mounted: The freeze dryer is delivered as a skid-mounted assembly in a standard container – tested and ready for installation. This minimises the need for on-site fabrication and reduces the erection time

EQUIPMENT:

BASIC SYSTEM

- Hygienic design prepared for automatic CIP
- Design prepared for robot automation
- Fits in a 20' container
- Stainless steel drying chamber
- Stainless steel condenser chamber
- Stainless steel condenser coil
- Complete refrigeration system
- Vacuum system with roots and dry screw pump
- Pressure sensors (high and low)
- Water heated heating shelves
- Wireless product temperature probes
- Rapid defrost function of condenser
- Filters on in- and out-let flows
- Touch screen control panel with PLC
- Data logging
- Stainless steel frame and cladding
- FAT, SAT and CE-documentation
- Pre-cooling of drying chamber

OPTIONS

- CIP equipment for both chambers
- CIP return equipment
- Nitrogen, Co2 or other gas purging
- Isolation valve
- Wire product temperature measurement
- Double pressure sensor set

OTHER VERSIONS

- Silicone heating/cooling shelves/plates including system

