



# WALK IN DEEP FREEZER

AN ISO 9001 : 2015 CERTIFIED CO. & CE MARK PRODUCT

Model No : SRL-WIDF-12

## Construction : {As Per GMP Guideline}

Pre-fabricated molecular panels with PUF insulation. Which can be easily assembled on site. Which are light weight & easy to handle. It can be assembled / disassembled for relocating. Interior is made of S.S. 316 & Exterior is made of S.S. 304 with PUF insulation, double walled door with PUF.



## Heating :

Encolite heaters for maintaining the set Temp.

## Air Circulation :

Efficient forced air circulating system is provided to ensure uniform conditions inside the chamber.

## Power Supply :

440V AC, 50Hz.

## Application :

Used for large number of sample in hospitals, Research institution. Public health laboratories etc. These chambers can be used for environment testing of production sample & large size equipments where temp. are to be controlled. They are suitable for storage of Food, biological specimen & accelerated ageing test of large number of pharmaceutical samples. They can also be used for botany, cytological, Departments, plant & animal breeding laboratories where controlled condition of Ultra Low temp. are required.

## Temp Range :

-20°C to -70°C Through Refrigeration System.

-70°C to -86°C Through LN2.

**Temperature Fluctuation** :  $\pm 0.2^{\circ}\text{C}$ ,

**Temperature Gradient** :  $\pm 2^{\circ}\text{C}$

**Heating Rate** : Normal

**Cooling Rate** : Normal

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## Refrigeration system :

### Cooling :

By hermetically sealed Danfoss / Embraco / Bitzer Make Compressors, for double stage compressor cooling system & humidity control.

### Cooling coil:

Copper cooling coil is sandwiched between the "PUFF" insulation & the Outer side of Inner working Chamber to transfer the cooling by conduction process for ULTRA Low temperature range. A separate finned cooling coil is fitted behind the baffle wall below the blower fan for humidity control system.

### Condensing Unit :

Heavy duty air cooled condensing unit with condensing fan will be provided at bottom side of the chamber. The complete assembly is fitted on base in such a way that any component can be replaced very easily.

### Refrigerant :

CFC Free : 404A, 508B

## Temp. Control : [PLC with HMI touch screen 3.8"]

Programmable Temp. Controller, Data Logger Temp. Data logger with LCD Display window capable to store non-volatile data memory up to 500 reading with audit trail facility complies USFDA 21 CFR part 11. Touch Panel Change over to stand by system automatically as per schedule or on detecting fault with current system. Temperatures overshoot and under shoot protection. Mobile Alarm System. In built PC port for connectivity for PC base operation of data management. Protection of UPS system in built with the controller for safe and uninterrupted functioning.

## Special Care :

Please note that this equipment has to be operated with a suitable rating Servo Controlled Voltage Stabilizer has to be installed in case of voltage fluctuations.

## Data Management Software 21 CFR Part 11 Compliance :

21 CFR part 11 Compliance.

Online & Offline Data representation in Tabular as well as Graphical Form.

Separate display formats for Real time Data & Acquired Data for single or multiple chambers

Mean Kinetic Value (MKT) as per USP 24 NP 19 - Daily, Weekly, Monthly.

## Safety Features :

Supervisory Safety Monitoring System has been introduced for additional Safety measures. Individual additional micro - controlled is used for this supervisory system. If the temperature value crosses set Hi & Low limits for either or both parameters, safety control action will be taken over by this controller. If the parameters sets within the limit value, main control action will resume automatically.

- ELCB, MCB for Compressor, Air heater & Mains.
- 2 Min. Compressor ON delay time for safety of compressor.

## Validation :

With 8 Temp. point scanner with sensor printer interface & Data storage facility, 24 hrs with load & 24 hrs w/o load, 8 hrs power failure test, 15 mins door opening test for one condition only.

## Documentation :

To comply with the documentation requirements, we provide IQ, OQ & PQ protocols to be executed before taking the chamber in to for regular use, and support the supply with the following documents with the detail operational and service manual.

Standard Operating Procedure (SOP)  
Operational Manual for Controller  
IQ,PQ,OQ protocols certificate.  
Calibration certificate of all controlling modules with traceability.  
Certificate of MOC.  
Test Report of chamber prior to supply with mapping certificate.  
wiring diagram for ease of service maintenance.

## Certification :

ISO 9001:2015 Certified Co. D&B registered & CE marked product.

Calibration & validation certificates traceable to NABL / ERTL accredited labs.



Due to continuous development & improvements in design, we reserve the right to change the specification without notice.