



DEEP FREEZER -40°C



Quality, Management, Environment, Health & Safety Standards



CDSCO MD 5 License



USFDA Listed



European CE



ISO 9001: 2015
IAF



ISO 13485:2016
NABCB/IAF



ISO 45001 : 2018
IAF



7 Electric Safety Certifications
IEC 60335-1 and IEC 60335-2-24, IEC 61010-1,
IEC 61010-2-020 and 61010-2-101, IEC 61326-1,
IEC 61326-2-6

INTRODUCTION

MarkEn Deep Freezers set the gold standard for safe, reliable, and energy-efficient preservation of the most sensitive biological materials including stem cells, plasma, semen, viruses, bone grafts, and other irreplaceable samples. Operating within a precisely controlled temperature range of -10°C to -40°C , these advanced units are engineered to meet the uncompromising demands of life science research institutes, hospitals, blood banks, pharmaceutical and biotech companies, and high-precision industrial applications. With robust performance, cutting-edge technology, and meticulous quality standards.



TECHNICAL EXCELLENCE



Wide Temperature Range: Offering precise cooling from -10°C to -40°C .



Tropical Climate Adaptation: Engineered to maintain peak performance even in high-temperature environments.



Heavy-Duty Weight Capacity: Uniformly distributed load-bearing trays for maximum efficiency.



Advanced Freezing Technology: Compression cycle system ensuring rapid, frost-free freezing.



Eco-Conscious Design: 100% CFC-free refrigeration and insulation for a greener planet.



Premium-Grade Tubing: Constructed with 99.97% pure copper for superior durability and efficiency.

CUTTING-EDGE FEATURES



Anti-Condensation Innovation: Hot line at the cabinet mouth prevents moisture buildup, safeguarding stored samples.



Intelligent Data Management: Internal memory captures temperature and alarm records, easily transferable to a PC.



Defrosting: Deep freezer chamber with automatic defrosting without manual override.



Auto Door Closure: Ensures consistent internal temperatures by preventing accidental exposure.



Unmatched Longevity: Designed for a minimum 10-year lifespan with guaranteed spare parts availability.

RIGOROUS SAFETY AND CERTIFICATIONS



CE Certified: Approved by European notified body No.1282.



Global Electrical Safety Standards: Fully compliant with IEC 61010, IEC 60335-1, and IEC 60335-2-24 standards.

ESSENTIAL ACCESSORIES



Precision Stem Alcohol Thermometer: Delivers accurate temperature monitoring for optimal sample preservation.



Advanced Voltage Stabilizer: Servo-controlled with automatic high-low voltage cut-off and time delay restart, ensuring uninterrupted performance.



Heavy-Duty Door Hinges



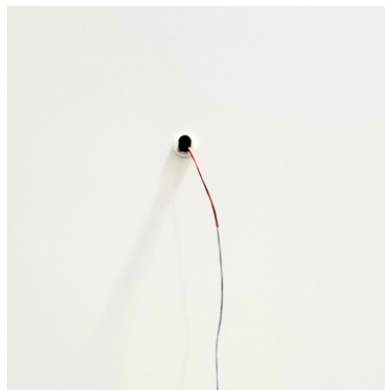
Secure Internal Door Locking



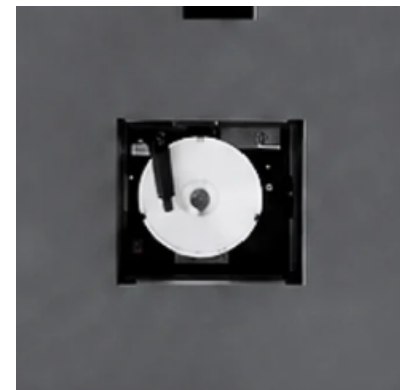
Digital Display Panel



Inner Door with Thermal Protection



Sensor Port For Centralised Monitoring (op



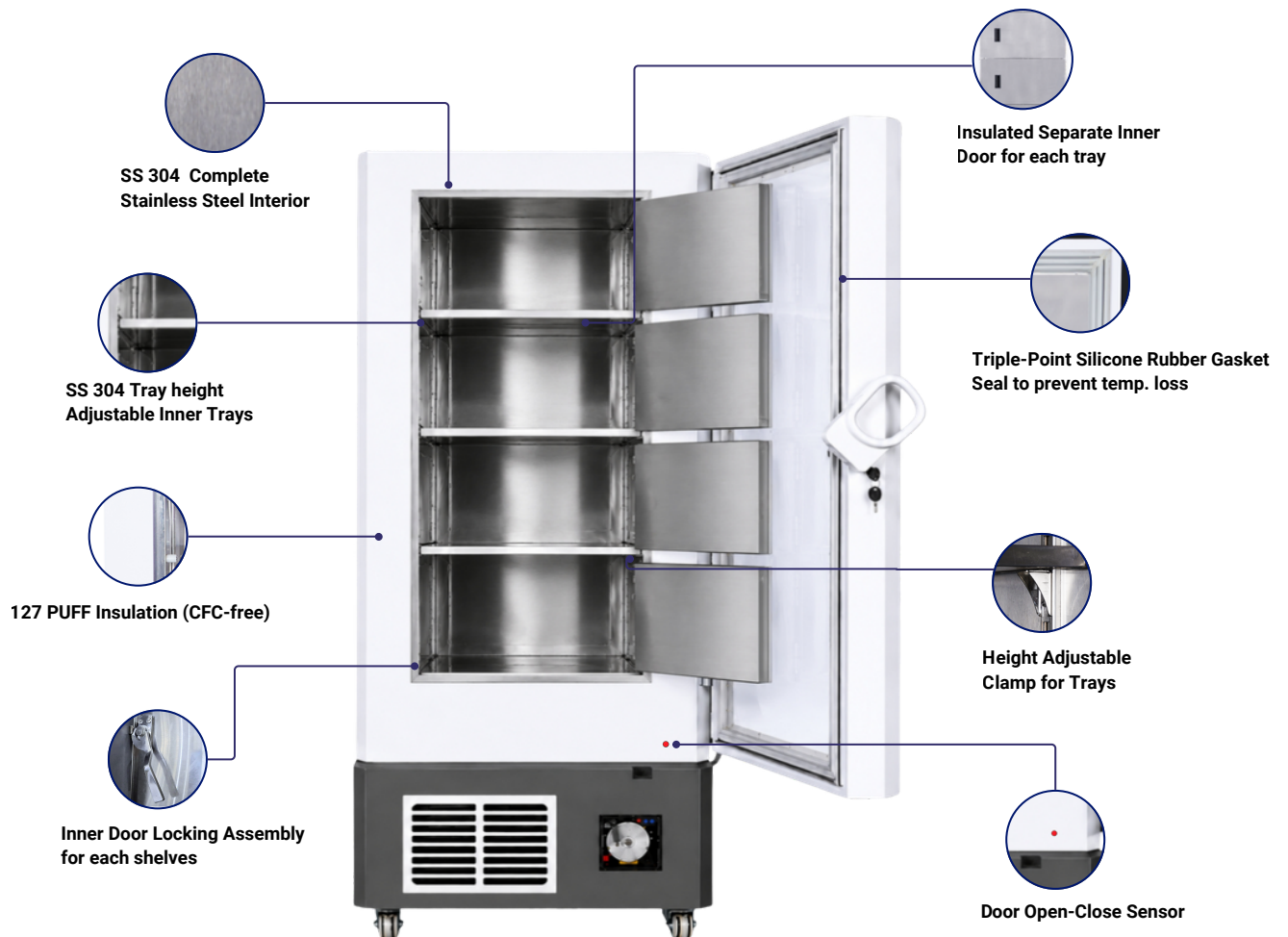
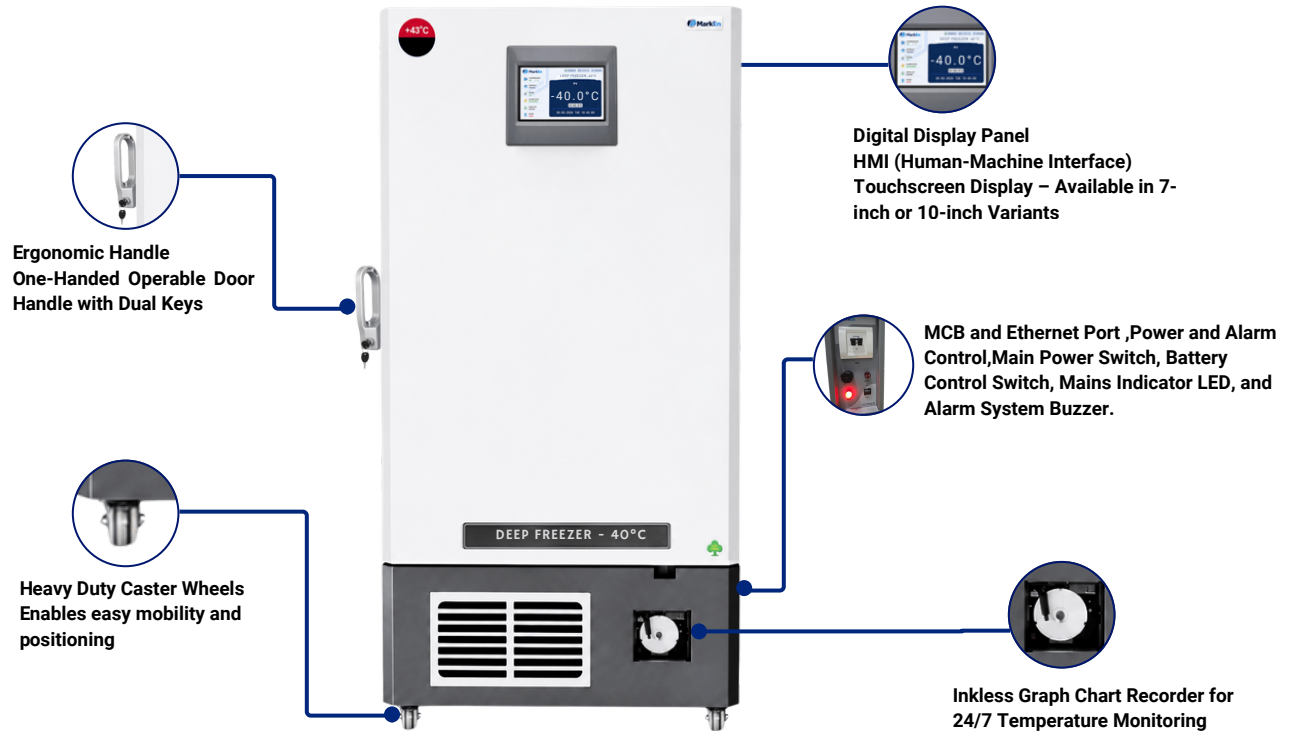
Inkless Graph Chart Recorder

DEEP FREEZER VERTICAL MODELS -40°C

Volume	180 liters	370 liters	425 liters	501 liters
Outer Dimensions (WxDxH) mm	613 x 797 x 1465	613 x 1007 x 1765	703 x 1007 x 1765	703 x 1007 x 1930
Inner Dimensions (WxDxH) mm	450 x 530 x 760	450 x 740 x 1060	540 x 740 x 1060	540 x 740 x 1210
PUF Size	Cabinet : 80 mm Door : 80 mm			
Wheel Height	120 mm	120 mm	120 mm	135 mm
Inner Tray	3	3	4	4
Insulated inner Door	3	3	4	4
Power Consumption	0.6 kW-hr/day	0.7 kW-hr/day	0.8 kW-hr/day	0.8 kW-hr/day
Net weight	90 Kg	110 Kg	115 Kg	125 Kg

Volume	690 liters	760 liters	810 liters	900 liters
Exterior Dimensions (WxDxH) mm	898 x 1007 x 1930	898 x 1057 x 1930	898 x 1057 x 2030	898 x 1007 x 2270
Interior Dimensions (WxDxH) mm	735 x 740 x 1210	735 x 790 x 1210	735 x 790 x 1310	735 x 740 x 1550
PUF Size	Cabinet : 80 mm Door : 80 mm			
Wheel Height	135 mm	135 mm	135 mm	135 mm
Inner Tray	4	5	5	5
Insulated inner Door	4	4	4	5
Power Consumption	0.9 kW-hr/day	1.3 kW-hr/day	1.3 kW-hr/day	1.7 kW-hr/day
Net weight	130 Kg	155 Kg	165 Kg	215 Kg

Volume	1000 liters	1300 liters	As per customer requirement
Exterior Dimensions (WxDxH) mm	1044 x 1084 x 2354	1154 x 1083 x 2554	
Interior Dimensions (WxDxH) mm	790 x 790 x 1500	900 x 790 x 1700	
PUF Size	Cabinet : 80 mm Door : 80 mm		
Wheel Height	135 mm	135 mm	
Inner Tray	5 to 7	6 to 8	
Insulated inner Door	6	6	
Power Consumption	1.9 kW-hr/day	2.4 kW-hr/day	
Net weight	240 Kg	270 Kg	



TECHNICAL SPECIFICATIONS

Make	MarkEn	
Type of Cabinet	Vertical/Upright	
Outer Material of Cabinet	Corrosion resistance CRCA/GI powder coated steel (18swg)	
Inner Material of Cabinet	High grade corrosion-resistant SS 304 (Stainless Steel)	
PUFF Insulation- CFC free	Cabinet: 127 mm	Door: 115 mm
Castors Wheels	Four castor wheels (two lockable and two unlockable) for easy mobility.	
Ground Clearance	100 mm	
Door	Solid lockable door with handle, provision for padlock, and four polystyrene-insulated inner doors, supported by electrically heated doors for quick opening in frost conditions.	
Compressor	Heavy-duty, maintenance-free Hermetically sealed compressor	
Refrigerants	CFC-free, high-efficiency non flammable refrigeration	
Condensing	Skin condensing with inner and air-cooled grooved aluminum fins	
Pull down time	04 Hours	
Operating Temperature	-10°C to -40°C adjustable with accuracy of $\pm 0.1^{\circ}\text{C}$	
Temperature uniformity	$\pm 2^{\circ}\text{C}$	
Environmental Condition	Maximum +43°C with Humidity 5% to 95% RH	
Control System	Fully programmable microprocessor-controlled system with membrane keypad and password-protected eye-level digital display for precise temperature setting.	
Temperature Monitoring System	24x7 temperature recorder/data logger with USB data download and optional IoT (cloud-based) monitoring and 7-day inkless chart recording.	
Display	Digital Temperature Display 7" Touch Screen.	
Alarms	Audible and visual alarm system for over/under temperature, overheat/overcool, power or system failure, door open, door ajar conditions voltage faults, and low battery conditions.	
Battery Backup (Optional)	24/48/72-hour backup for temperature display, security lock, alarm system, and temperature chart recorder to ensure continuous recording in case of power failure with auto recharging facility.	
Access port	Provision of connecting LN2/CO2 Backup system for maintaining the set temperature during power failure (Optional)	
Noise level	<50 db	
Power supply	210-240 V AC, 50-60 Hz +10%	

ALL-IN-ONE SOLUTION FOR

Cold Chain Solution
Medical Equipment
Blood Bank Equipment

Hospital & Scientific Equipment
Hospital Furniture & Infrastructure
Commercial Refrigeration



25+

Years of Excellence



400+

Product Range



500+

Service center



1000+

Committed Engineers



1,00,000+

Satisfied Users

CERTIFICATION



10 products tested by a
WHO-PQS accredited
laboratory



Intertek



ISO 14001: IAF



WHO GMP



BIFMA Certified,
BIFMA Level 3



ASTM- Corrosion
Free Products



ISO 2409

EN 13523-26,
ISO 13849-1,
IP 69, IP 65

& MANY OTHER...

OUR ESTEEMED CUSTOMERS



& MANY MORE...



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