



Kryo 750 - 30



The Planer Kryo 750-30 flexible cryogenic system designed for freezing of Bone Marrow, Stem Cells, Pharmaceutical Cell Lines, Skin, Cord Blood and other critical samples in high volumes

- ❑ Designed for freezing of samples in bags, ampoules and straws
- ❑ Unique 2 button operation
- ❑ Standard PC software enables password protected multiple protocols
- ❑ Protocol stage “trigger on sample”, or chamber temperature, or time
- ❑ Unique forced laminar flow cooling system ensures most efficient, even cooling
- ❑ Top, or Front opening for easy loading
- ❑ Heated door seal prevents freezing shut at cryogenic temperatures
- ❑ Inner chamber removable for sterilisation
- ❑ Standard operating features:-
 - ◆ Start above ambient
 - ◆ Controlled heating
 - ◆ Comms port for PC connection
 - ◆ Fast cooling rates

The Kryo 750 - 30 is a unique integrated freezing system for the cryopreservation of large volumed samples or **samples in large numbers**. The easy access front opening door is closed via a 3 point closure system, ensuring a leak free seal which helps to **prevent the door freezing** closed at low temperatures; additional protection is provided by heated door seals.

The freezer's 'on board' control system is operated with a unique two button process. This ensures that the user cannot accidentally run the wrong protocol, enabling **rapid user training** and absolute process verification.

Optionally the system may be operated via Planer's PC application, Delta^T™ - this offers multiple protocols and data viewing on line, as well as **data capture and storage for validation**. The software is multi-level password protected to ensure only authorised users carry out procedures. User calibration to external standards is featured.

The large easy access chamber offers great flexibility and high capacity to ensure the most demanding laboratory requirements can be met. Protocols can be based on '**sample temperature event**' triggering, which combined with the fast cooling rates and forced laminar flow of the system, ensures high efficiency cooling at the fusion temperature. This enables efficient **latent heat removal**, creating optimum sample viability post thaw.

SPECIFICATION OVERVIEW

- Chamber volume: 29 litres
- Capacity: 20 x 250/500ml blood bags, horizontally/vertically in chamber, or 40 x 50ml blood bags, horizontally/vertically in chamber
- Ampoule capacity: 1452 x 2ml
- Straw capacity: 1216 x 2ml
- Lower temperature limit: -160°C
- Cooling rates: -0.1 to -50°C/Min
- Controlled heating rates: 0.1 to 10°C/Min
- System controller: Integral
- System Pump: Cylinder
- System Dewar: N/A
- PC Software: Delta T™

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TECHNICAL SPECIFICATION

Kryo 750 - 30

Dimensions

Front Loading	External	Internal
Height	55cm	26cm
Width	79cm	46.5cm
Depth	48cm	25cm
Top Loading	External	Internal
Height	48cm	25cm
Width	79cm	46.5cm
Depth	55cm	26cm

Weight	45kg (shipping weight including packaging) approx.
Capacity	1452 x 2ml ampoules, or 1216 x 0.5ml straws (horizontal or vertical), or 1216 x 0.25ml straws (horizontal or vertical), or 40 x 50ml blood bags, or 20 x 250ml blood bags, or 20 x 500ml blood bags
Circulation	Horizontal laminar flow
Temperature range	+100.0°C to -160°C
Cooling medium	Liquid nitrogen 22 ±2 psi.
Heater	1000W.
Sensors	Control and sample: 4-wire Platinum resistance thermometer
Accuracy	±0.5°C at a hold at 0°C (dynamic accuracy depends on actual programme, e.g. rate of change of temperature)
Heating rates	0.01°C/min to 10°C/min.
Cooling rates	-0.01°C/min to -10°C/min.
Programmable Cooling Rate Range	-0.01°C/min to -99.9°C/min.
Operating positions	Vertical or horizontal
Thermal cutout	120°C cutout
Power	103-126VAC 50/60Hz 1200VA (max.)
Chart Sensitivity:	16.7mV/°C. Nominal impedance >10K
Recorder	Scaling: 0V = -200°C, +5V = +100°C
Standards	Designed to comply with BSEN 61010, CSA22.2No.125-M1984, CSA22.2No.151-M1986, EN50082-2, EN50081-2.
Storage temperature	-10°C to +70°C
Storage humidity	Up to 95% noncondensing
Operating temperature	5°C to +40°C
Operating humidity	Less than 90%