Series 500

Kryo 520 - 16

The Planer Kryo 520 - 16 entry level biological freezer for freezing of non critical Cell Lines

- Designed for freezing of cell lines in ampoules
- Compact, top opening design
- Controller displays demand, sample and chamber temperatures, programme stage and current temperature graphic
- Menu driven controller, simple to programme and operate
- Forced laminar flow of coolant in chamber offers high efficiency, even cooling
- Full, logical upgrade path available to add features e.g.:-
  - ⇒ Start above ambient
  - ⇒ Controlled heating
  - ⇒ Data Printing
  - ⇒ Comms port for PC connection
  - ⇒ Fast cooling rates

The Kryo 520 - 16, although an entry level biological freezer, incorporates many of the critical features of the more established freezers in the Planer range. Whilst not recommended for Human work, due to the **limited lower temperature**, the flexibility of the system is ideal for the freezing of cell lines.

Offering multiple programming combined with flexible temperature rates, **most standard protocols** can be accurately and reproducibly completed with the Kryo 520 - 16.

Should applications change, or the regulation of processes require greater validation or data retention, the unit may be **simply upgraded** with the addition of the Planer Upgrade Packs which include a built in printer and PC connection. This is compatible with our comprehensive Delta T software application. When fitted with the integral printer, any of the last 5 freezing runs may be graphed.

Planer developed the world's first programmable freezer in the 1970's. Since then we, and our users, have pioneered the field of controlled rate freezing for biological and other materials on a world-wide basis, with many breakthroughs and awards to our respective names. Together with our distributors in over fifty countries we work with our customers and users continually. It is their needs which drive our development. For this reason we aim to supply an integrated range that can be easily upgraded. This means, for example, that as techniques alter, throughput increases or validation requirements change, there should be an easy upgrade path to add an extra software level, a new inventory package or upgraded hardware to your system.

SPECIFICATION OVERVIEW

- **Chamber volume: 16 litres**
- **Ampoule capacity: 726 x 2ml ampoules in baskets**
- **Lower temperature limit: -100ºC**
- **Cooling rates: -0.01 to -30ºC/Min (upgradeable to - 50ºC/min)**
- **System controller: MRV light**
- **System Pump: LNP4**
- **System Dewar: LAB30**
- **PC Software upgrade: Delta T**

For further information on this or any other product from PLANER contact the Sales Department at

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Technical Specification - Kryo 520 - 16

System Specifications	
Range	Ambient to -100ºC (+30ºC to -180ºC with Optional Performance Pack)
Heating rates	0.01ºC/min to 10ºC/min.(with Optional Performance Pack)
Cooling rates	-0.01ºC/min to -30ºC/min.(-50ºC with Optional Performance Pack)
Accuracy	± (0.3 + 0.005 x TM)ºC (where TM is the magnitude of the temperature).
Storage temperature	-10ºC to +50ºC.
Storage humidity	5% to 95% relative humidity non-condensing.
Operating temperature	5ºC to +40ºC.
Operating humidity	5% to 90% relative humidity non-condensing.
Controller Specifications	
Dimensions	80mm high x 220mm wide x 350mm deep
Weight	2.6 Kg approx.
Display	240 x 64 LCD with CCFL backlight
Printer	320/640 dot thermal printer (With Optional Data Pack)
Keypad	20 key membrane keypad
Programmable Cooling Rate Range	-0.01ºC/min to -30.0ºC/min.
Number of profiles	10
Steps per profile	32
Number of stored runs	5 (With Optional Data Pack)
Chamber Specifications	
weight Kg	23
capacity litres	16
chamber dimensions mm	305h x 230w x 230d
0.25ml straws	608 horizontal 250 vertical
0.5ml straws	608
2ml ampoules	726
50ml blood bags	22
250ml blood bags	11
500ml blood bags	11
Power Requirements (Includes MRV Controller)	115V ~ 50/60Hz 1500VA / 230V ~ 50/60Hz 1500VA