

Planer benchtop incubator BT37

The ultimate cell culture environment

- Accurate temperature
- Battery backup
- Accepts wide selection of culture dishes
- Fast recovery times
- Network ready



The Planer benchtop incubator is primarily designed to grow and maintain cell cultures, particularly for IVF & Stem Cell applications. The incubator will keep cells at an optimal temperature, humidity and gas content by maintaining a constant and clean environment for the embryo or cell. The most common parameters for IVF work are 37°C, 6% CO₂, 5% O₂, balance Nitrogen and near 100% relative humidity.

For embryos, incubators are their temporary homes and must replicate the condition within the human body thus reducing embryonic stress from temperature, humidity or pH change.

Accuracy and control of the chamber to obtain environmental homeostasis is imperative. The Planer benchtop incubator is the most accurate of its kind ensuring the embryo suffers little or no exposure to temperature or pH level changes.

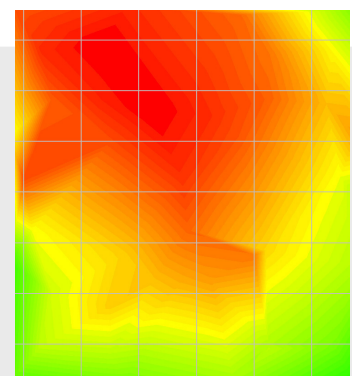
The compact size allows placement

cabinets and chambers and separation of patient by chamber increasing security. Flow control is unique with continuous, pulse and bleed options all available to optimise culture conditions and reduce

- Accurate temperature and humidified-gas controlled environment in a small benchtop device
- Includes inbuilt battery backup for up to 2 hours
- Accepts largest selection of culture dishes available
- All critical operating parameters are password protected to prevent
- Easy to use 2 line display with an intuitive 3 button user interface
- Set-points for each chamber can be set independently
- Network ready to allow continuous monitoring
- Clear, unambiguous status indicators visible from across the lab

Unrivalled accuracy

Temperature map of incubator plate inside culture dish area showing variations of less than 0.3°C over the whole plate temperature whilst providing stable temperatures within +/- 0.2°C at dish area. This, coupled with heated upper plates unrivalled temperature accuracy within sample dishes.



Planer benchtop incubator BT37

The ultimate cell culture environment

Physical

Dimensions	420 mm wide x 270 mm deep x 210 mm high
Weight	15.5 kg
Storage temperature	-10 °C to +50 °C
Storage humidity	5% to 95% relative humidity non-condensing
Operating environment	For indoor use only
Operating temperature	+5 °C to +40 °C for safe operation. See also temperature control range restriction.
Operating humidity	10% to 90% relative humidity non-condensing
Altitude	up to 2000 m
Pollution degree	Pollution degree 2 (BS EN61010-1)

Control

Temperature control range	(ambient + 5 °C) to 40 °C.
Temperature measurement accuracy	± 0.2 °C
Temperature control accuracy	± 0.1 °C measured after any transient effects due to set-point changes have subsided.
Flow control range	0 ml/minute to 900 ml/minute. Flow measurements are normalised to 0 C , 50% RH and 1 bar.
Flow accuracy	The greater of ± 10% or ± 0.3 ml/minute
Flow control accuracy	The greater of ± 5% or ± 0.2 ml/minute measured after any transient effects due to set-point changes have subsided.

Capacity

Dishes per chamber	4 x NUNC 4 well dishes 4 x NUNC 60 mm dishes 10 x NUNC 30 mm dishes & many more types accepted	4 x MINITUB 5 well dishes 4 x FALCON 60 mm dishes 4 x FALCON 60mm single -well "organ culture" dishes
--------------------	---	--

Power

Power requirements (see note) Includes Controller	100 - 230 V~ / 50/60Hz / 1.1 A
Internal battery backup	Gelled sealed lead acid battery / 12 v x 12 Ah

Gas supply

Gas supply	Premixed gas. Typically 6% CO ₂ , 5% O ₂ , balance N ₂
Supply pressure	1.5 ± 0.15 bar
Connectors	Regulator must be supplied with Swagelok 1/4" connection SS-400-1-4RT

Alarms

Alarms	The incubator provides 3 volt-free terminals which provide normally-open and normally-closed contacts.
--------	--

Remote monitoring

LAN	10 Base T Ethernet - RJ45 shielded. Modbus-TCP-IP protocol.
Remote PT100 sensors	PT100 Class A to EN60751. Maximum diameter 2.51 mm. Minimum length 100 mm. Sensing region should be within 15 mm of the tip.