

ORIGIO / PLANER benchtop incubator BT37

Unrivalled temperature,
gas and humidity control



origio

Designed to maintain consistent culturing environments for optimum temperature and pH control

- Rapid recovery to optimal environment
- Network connectivity for data output
- Integrated battery backup
- Base plate of chamber matched to common IVF dishes
- Reduced oxygen culture capability
- The BT37 works with any defined premixed gas of choice - to achieve the proper CO₂ and reduced O₂ environment.



Homeostasis is imperative

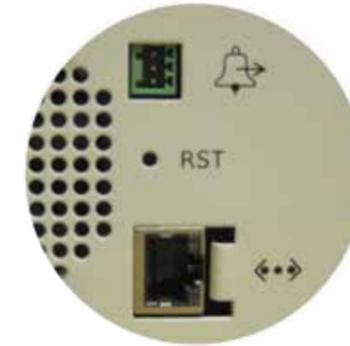
The ORIGIO/ PLANER benchtop incubator BT37 is primarily designed to grow and maintain cell cultures, particularly for IVF applications. The incubator will keep cells at an optimal temperature, humidity and gas

content by maintaining a constant and clean environment for the embryo. The BT37 works with any defined premixed gas of choice - to achieve the proper CO₂ and reduced O₂ environment." Incubators are temporary homes for embryos and must replicate the conditions 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 BT37 benchtop incubator is very accurate, ensuring the embryo suffers little or no exposure to temperature or pH level changes.** The compact size allows placement anywhere in the lab including flow cabinets and chambers and separation of individual patient embryos by chamber increasing security. Flow control is unique with a continuous, pulse and bleed options all available to optimize culture conditions and reduce gas usage.

Secure gas flow

- Tube guides reduce risk of "kinking" (bent tubes)
- Heated tube guides reduce risk of condensation in tubes
- Correct gas temperature
- Prevents condensation



Remote monitoring

- 10 Base T Ethernet (RJ 45)
- Modbus - TCP/IP protocol
- External alarm contact



6 monitoring ports
For external probes / calibration

Full-contact heating plates

- Exceptional heat distribution
- Accepts largest selection of culture dishes
- Absolute temperature control to 0.1c
- 7 point control



Gas connectors

- std. SWAGELOK connectors
- can be connected in series



Cooling fan

- Remove excess heat
- Quick response to temperature changes
- Internal temperature control
- Prevents condensation

Password protection

No accidental or unauthorized modification of operating parameters (no accidental "switch-off")

"Bubble check" gas flow system

Gas flow clearly visible from across the lab



Status indicators

Clearly visible from across the lab

Battery backup

Built-in backup for up to 2 hours



Advantages

Temperature

- The most accurate temperature controlled incubator currently available
- Control accuracy to 0.1c
- Utilizing tightly packed, full surface heating elements
- 7 temperature controllers ensure accuracy and control over entire chamber
- Cooling fans to control internal temperature and humidity system

Gas control

- Delivering exact gas specification
- Dedicated non diffusing tubes
- Unique pulse, bleed and purge flow
- Rapid recovery after lid opening
- Low gas usage

Humidity

- Heated gas tubes ensure gas is delivered at exact temperature
- Tube guides prevent tube blocking
- Airflow system prevents condensation
- Unique visual gas flow system
- Unique visual water level system

ORIGIO / PLANER BT37 vs. standard large incubators

- Small volume chamber for culture = Far greater control and accuracy of pH, temperature, and humidity.
- Heated base and lid provides a very stable environment.
- Faster recovery of all parameters after lid opening
- Patient-specific chambers
- Compact, space-efficient

Control is everything!

Fast temperature drop and slow recovery inside large incubator after opening of incubator door. The mini incubator chamber allows stable, constant temperature.

ORIGIO / PLANER BT37 vs. other commercial mini incubators

- Unrivalled temperature & humidity control using tightly packed, full-surface heating elements combined with a cooling fan.
- Holds the largest range of culture dishes
- Clear, unambiguous status indicators visible from across the lab.
- Password protected – no accidental changes
- Built-in battery backup for up to 2 hrs
- Water level & gas flow visual indicator
- Ethernet access port
- Independent PRT ports for lid and base unit
- Advanced alarm system

Unrivalled accuracy

Temperature control is kept stable within +/- 0.1c at dish area. This, coupled with heated upper plates and humidification system, provides unrivalled temperature accuracy within sample dishes.

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	5% 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 4 x MINITUB 5 well dishes 4 x FALCON 60 mm dishes 4 x FALCON 60mm single - well "organ culture" dishes
Power	
Power requirements 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% CO2, 5% O2, balance N2
Supply pressure	1.5 ± 0.15 bar
Connectors	SWAGELOK 1/4" tube fitting
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	Remote PT100 sensors PT100 Class A to EN60751. In order to fit the monitoring ports the sensor must meet the following specification: Maximum diameter 2.51 mm. Minimum length 100 mm. Sensing region should be within 15 mm of the tip.