# CO2CELL

## CO<sub>2</sub> incubator





Latest generation of CO<sub>2</sub> incubators is focused on constant and repeatable conditions for cell growth procedures, tissue and other culturing procedures. Direct heating system eliminates the need of fan and consequently eliminates the risk of vibrations and cross-contamination. Drift-free infrared sensor provides maximum reliability and measurement precision during the whole process. Thanks to the unique 6-sided direct heated chamber, installation and maintenance is very easy. Inner glass door are sealed towards the chamber insulation which allows you to check the samples without losing the internal conditions. Outer door is also sealed with it's own external sealing. Range of useful options supports features like sterilization on 200 °C while  ${\rm CO_2}$  /  ${\rm O_2}$  sensor remains inside the machine, multi inner glass door to minimize loss of chamber conditions after door opening, Oxygen control, etc.

Inner volume: 50, 190 litres

Working temperature: 5 °C above ambient

temperature up to 60 °C

Non-controlled relative humidity: up to 95 %

RH at 37 °C

CO<sub>2</sub> concentration: 0,1 % up to 20 % CO<sub>2</sub> sensor: Drift-free infrared (IR) sensor

Standard: Stainless steel DIN 1.4571 (AISI 304) Comfort: Stainless steel DIN 1.4571 (AISI 316)

#### anti-microbiological paint

- internal glass door
- contamination risk avoided by using no fan
- 2 x 3 LED display
- continuous indication of actual temperature and CO2 concentration
- audio and visual alarm
- infrared drift free CO2 sensor
- independent safety thermostat
- HEPA filter on incoming CO, tubing
- seamless inner chamber with rounded corners
- direct 6-sided heating system for maximum homogeneity of internal conditions
- $25\ \text{mm}$  access port in the back of the machine



160 °C decontamination (only 190 litres)

- 3-split inner glass door (only 50 litres)
- 6-split inner glass door (only 50 litres)
- 8-split inner glass door (only 190 litres) with shelves dividers
- CO<sub>2</sub> Inline pressure regulator
- two stage CO<sub>2</sub> regulator
- automatic change over unit
- stacking kit for two machines (of same volume)
- cart-type underframe with 4 castors (two castors lockable)
- IQ/OQ protocols
- left hinged door

#### The high-tech Comfort line with advanced touch screen control unit

- anti-microbiological paint
- internal glass door
- contamination risk avoided by using no fan
- large color touch screen display, simple icon
- continuous indication of actual temperature, CO2 concentration, time and alarm limits
- audio and visual alarm
- infrared drift free CO<sub>2</sub> sensor
- independent safety thermostat
- SD card system saving the data in MS Excel format
- RS 232 port, BMS relay alarm contact
- HEPA filter on incoming CO<sub>2</sub> / NO<sub>2</sub> tubing
- seamless inner chamber with rounded corners direct 6-sided heating system for maximum homogeneity of internal conditions
- on board data-logging facility with graphs
- high process security users protected by passwords (5 users, 1 admin)
- event log of all relevant data and events
- 25 mm access port in the back of the machine



### CO<sub>2</sub>Cell Comfort available options

- 200 °C Sterilization
- oxygen control 1-19 %
- humidity display
- - 3-split inner glass door (only 50 litres)
- 6-split inner glass door (only 50 litres)
- 8-split inner glass door (only 190 litres) with shelves dividers
- two stages N2 pressure regulator
- CO<sub>2</sub> Inline pressure regulator
- two stage CO, regulator
- automatic change over unit
- stacking kit for two machines (of same volume)
- cart-type underframe with 4 castors (two castors lockable)
- IQ/OQ protocols
- left hinged door
- Ethernet connection port
- 4-20 mA re-transmitt

| Technical data                                   |   | Model                      | 50                    | 190                       |
|--|---|----------------------------|-----------------------|---------------------------|
| Interior dimensions                              |   |                            |                       |                           |
|  | volume  | I                          | 50                    | 190                       |
|  | width   | mm                         | 402                   | 632                       |
|  | depth   | mm                         | 300                   | 440                       |
|  | height  | mm                         | 402                   | 686                       |
| Shelves (trays)*<br>High-quality stainless steel | number  | max.<br>stand.             | 3<br>3                | 8<br>4                    |
| External dimensions                              |   |                            |                       |                           |
|  | width   | max. mm                    | 534                   | 765                       |
|  | depth   | max. mm                    | 460                   | 734                       |
|  | height  | max. mm                    | 717                   | 862                       |
| Weight   | netto Standard / Comfort<br>brutto Standard / Comfort | kg<br>kg                   | 38 / 40<br>50 / 52    | 94,5 / 104<br>109 / 117,5 |
| Temperature data                                 |   |                            |                       |                           |
| Temperature deviations at 37 °C                  | measurement<br>spatially<br>in time                   | (±) °C<br>(±) °C<br>(±) °C | ≤0,1<br>≤0,25<br>≤0,1 | ≤0,1<br>≤0,25<br>≤0,1     |
| Recovery rate                                    |   | % / min                    | ≤0,8                  |                           |
| Required CO <sub>2</sub> pressure                |   | bar / psi                  | 0,3-0,7 / 5-10        |                           |
| Relative humidity                                | humidity dish volume                                  | litres                     | 0,5                   | 1,5                       |
| Humidity level at 37 °C, 5 °C CO <sub>2</sub>    |   | % RH                       | up to 95              |                           |
| Electric parameters                              |   |                            |                       |                           |
|  | max output / sterilization                            | W                          | 350 / 950             | 380 / 1800                |
|  | consumption<br>(to maintan 37 °C)                     | kWh                        | 0,072                 | 0,058                     |
|  | voltage (50 / 60 Hz)                                  | V                          | 230**                 |                           |

Approx. 50 % of the tray area can be filled in a way a uniform air circulation is enabled inside the chamber

Changes in the desing and make reserved.







Voltage ±10 %