

CULTURE AS NATURE INTENDED



PHO₂X BOX

BAKER

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PHO₂X BOX - A NEW GAS CONTROLLED HYPOXIA SYSTEM

Baker Ruskinn's PhO₂x Box is a new, easy to use and economical Physoxia/Hypoxia system designed for in vitro cell culture experiments. PhO₂x Box comprises a single Gas Controller (offering both O₂ and CO₂ control) and a Cell Culture Chamber. The Cell Culture Chamber can be placed on a lab bench, or be placed inside an Incubator or a Workstation.



Figure 1. blot provided by PhD Daniela Menerich, University of Oulu, Finland, showing proof of hypoxic conditions in the PhO₂x Box inside a standard CO₂ Incubator

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Gas Controller

- Controls and Monitors O₂ and CO₂ levels with a single touchscreen
- Intuitive touchscreen with large font number display
- Small footprint (325mm wide x 298mm deep)
- Easy user set up, takes around 10 minutes
- Only needs N₂ and CO₂ cylinders for operation for lower running costs
- 2 year warranty for peace of mind and lower running costs

PHO₂X BOX INCLUDED FEATURES



Touchscreen Control

- O₂ control (from 0.1% to 20.0% in 0.1% increments)
- CO₂ control (from 0.1% to 20.0% in 0.1% increments)
- Hypoxic Cycling
- Temperature Display (of Cell Culture Chamber)

Data Log:

- Up to 12 Months data history
- One Data Set stored per minute, each Data Set comprises: Time, Date, O₂ (Set/Actual), CO₂ (Set/Actual)
- Stored on SD card provided

Audible Alarms:

- Low Gas (either CO₂ or N₂)

Culture Chambers

Your choice of 4 types of Cell Culture Chamber. Each is gas tight, has removable shelving and is easy to clean

- Black (light reducing) - Small and Large
- Clear - Small and Large



CULTURE CHAMBER DIMENSIONS

		SMALL (Black or Clear) Chamber		LARGE (Black or Clear) Chamber	
		mm	inches	mm	inches
		External dimensions	Width	355	14
Height	173		6.8	238	9.4
Depth	369		14.5	369	14.5
Internal dimensions	Width	335	13.2	335	13.2
	Height	140	5.5	205	8.1
	Depth	280	11	280	11
	Volume	13.1 Litres		19.2 Litres	
Workstation capacity-96 well plates	Number of plates (128mm x 86mm x 17mm)	8 plates on shelf, (4 stacks of 2 plates high on shelf)		24 plates, (4 stacks of 2 plates high per shelf, 3 shelves)	
Workstation capacity-T 75 flasks	Number of flasks (150mm x 80mm x 86mm)	6 (on shelf)		18 (6 on each shelf)	
PhO ₂ Box System	Kgs/Lbs	5.5 Kg/12.1 lbs (chamber) & 5.5 kg/12.1 lbs (controller)		6.5 kg/14.3 lbs (chamber) & 5.5 kg/12.1 lbs (controller)	

Usable Internal Volume: 13.1 litres (Small Chamber) | 19.2 litres (Large Chamber)

Gas Controller External dimensions		mm	inches	
		Width	325	12.8
		Height	238	9.4
		Depth	298	11.7

PERFORMANCE DATA

Settings on Controller	Gas Type		Coefficient of Variation (based on >700 readings)	
	O ₂ %	CO ₂ %	O ₂ %	CO ₂ %
	0.1	5	<8%	<5%
1	5	<5%	<5%	
5	5	<2%	<5%	

PERFORMANCE DATA AT DIFFERENT GAS LEVEL SETTINGS

	0.1% O ₂ / 5.0% CO ₂	
	O ₂	CO ₂
	Mean	0.1
%CV	6.7	2.2

	1% O ₂ / 5.0% CO ₂	
	O ₂	CO ₂
	Mean	1.1
%CV	7.9	1.9

	5% O ₂ / 5.0% CO ₂	
	O ₂	CO ₂
	Mean	5.1
%CV	1.3	1.6

OPTIONAL ACCESSORIES

Single Cable Gland - Must be factory fitted

Gas Sample Port

O₂ Meter

POWER SPECIFICATIONS

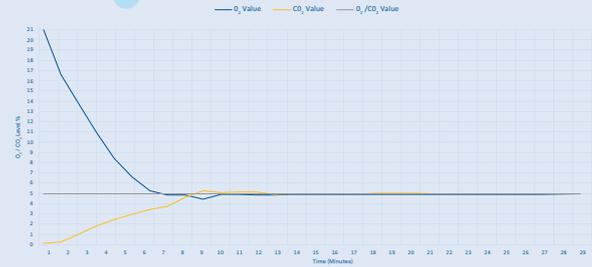
Voltage: 100 Volts to 240 Volts AC

Power: 15 Watts

130kWh/Year (Based on 24 / 7 / 365)



Time to Set Point Large Culture Chamber O₂-5% CO₂-5%



30 Second Door Opening Recovery Large Culture Chamber O₂-5% CO₂-5%



5 Minute Door Opening Recovery Large Culture Chamber O₂-5% CO₂-5%





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Our Baker Ruskinn products are packed with new, innovative features that allow you to study even the most complex cell interactions under perfect physiological oxygen conditions. Whether you're hoping to replicate the environment of blood vessels or lung tissue, Baker Ruskinn provides the best tools for the job.

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