

PetriSphere



Anaerobic Gas-System

Quick and convenient solution

Create atmospheres suitable for the culturing of anaerobic, microaerophilic and capnophilic bacteria in common anaerobic jars

Extremely rapid oxygen depletion

Develop anaerobic atmospheric conditions inside the jar in less than 1 minute

Flexibility

Chose the level of oxygen depletion (microaerophilic atmosphere)

Significant cost savings

Reduce capital and operating costs

Multipl simultaneous atmospheres

Within multiple jars



PETRISPHERE – RAPID OXYGEN DEPLETION – NO CONSUMABLES

Principle

When performing quality control for food, drink, cosmetic or hygiene products, samples are tested for the presence of anaerobic bacteria, the cause of many infectious diseases and food poisoning. Such sample are incubated in containers under anaerobic atmospheric conditions. Specific, expensive compounds are normally required to replace the oxygen-containing air with dry nitrogen.

The new PetriSphere™ system consists of a microprocessor-based controller, a diaphragm vacuum pump and a gas reservoir connection which enables the air to be replaced by nitrogen or carbon dioxide gas.

Cost and convenience

Traditional methods may involve high capital cost (e.g. glove boxes) and significant use of consumables (e.g. bag-based anaerobic jars).

PetriSphere lowers the cost of consumables required and reduces the need for compound supplies and waste products. The power and control of the vacuum system is sufficient to operate without sachets or catalysts.

Simple to use

Programmed using keyboard. Draining and filling with replacement gas (nitrogen or carbon dioxide) managed automatically. Gas extraction can be controlled (up to 2mbar) to reduce the risk of cell lysis.



Alternative Gases

Where alternative gases / customized gas-mixtures are desirable, only one lecture bottle is required.

Rapid Oxygen Depletion

PetriSphere generates an anaerobic atmosphere ($O_2 < 0.05\%$) in less than 3 minutes (using a standard jar). Sensitive strains remains viable.

Simple Assembly

The click connectors, equipped with an inbuilt one-way valve, make it easy to disconnect the jar when placing in an incubator.

Specification motor

Ultimate pressure	< 2 mbar
Pumping speed (at 50/60 Hz)	0.8/0.9 m ³ /h
Max. inlet pressure (mbar)	1 mbar
Max. outlet Powerpressure (mbar)	1 mbar
Bearing	maintenance free
Reference surface sound (Din 45035)	< 44 dB (A)
Power	0.83 kW
Protection (motor) DIN EN 60034-1	IP 20
Class of insulation DIN EN 60034-1	F (160°C)

Specification vacuum controller

Sensor interface	3 conductor
Scan frequency	10 Hz
Resolution ADC	12 bit
Power supply	+5 stabilized
Sensor signal	0.5 to 4.5 V
Sensor (integrated ceramic sensor)	1-1100 mbar
Sensor uncertainty	±/- FS mbar
Pumping speed (m ³ /h at 50/60 Hz)	0.8/0.9

Specification dimensions

Dimensions (W/D/H)	(235/145/345 mm)
Weight	17 kg (5.5 Lbs)



Order Information



112011-04 PetriSphere Processing unit with 1 jar and quick connection kit



112011-05 PetriSphere Stand-alone processing unit, connectable to existing jars



112005 Anaerobic Jar Complete with lid, seal, valve and rack



112005-06 Spare Rack In anaerobic jar, for 11-12 petri dishes, stainless steel



803314 Silicone Tubing for jar connectors, 1 meter



112005-08 Jar Seal



829990-1 Elbow Union With hose nozzle, grey, fits to anaerobic jar, polycarbonate



433944 Service Kit for local 5 year service, contains unit seals