



> place dishes



> in jar



> connect



> get your atmosphere!



**BIOTOOL SWISS**  
*innovative laboratory technology*

# 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

Choose the level of oxygen depletion (microaerophilic atmosphere)

### Significant cost savings

Reduce capital and operating costs

### Multiple 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 oxygencontaining 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.

## 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



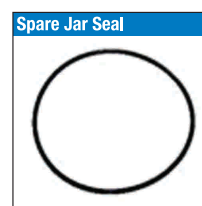
**# 112555 Anaerobic Jar**  
Complete with lid, seal, valve and rack



**# 112555-06 Spare Rack**  
In anaerobic jar, for 11-12 petri dishes, stainless steel



**# 828374 Silicone Tubing**  
For jar connection, 1 meter



**# 112555-08 Jar Seal**



**# 829996-1 Elbow Union**  
With hose nozzle, grey, fits to anaerobic jar, polypropylene



**# 402044 Service Kit**  
For local 5 year service, contains unit seals



**Media Preparator 10/20 L**  
ProfiClave PC10, benchtop  
ProfiClave PC20, benchtop



**Petri Dish Filler**  
Petriswiss PS900 HTS  
Petriswiss PS20 mini



**Safety Bunsen Burner**  
LabFlame IR  
LabFlame +



**Peristaltic Pumps**  
Dosipump DP 1000  
Dosipump DP 500

## Specification motor

Ultimate pressure	< 2 mbar
Pumping speed (at 50/60 Hz)	0.8/0.9 m³/h
Max. inlet pressure (mbar)	1 mbar
Max. outlet Powerpressure (mbar)	1 mbar
Bearing	maintenance free
Reference surface sound (Din 45635)	< 44 dB (A)
Power	0,83 kW
Protection (motor) DIN EN 600034-1	IP 20
Class of insulation DIN EN 600034-1	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 (m³/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)



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