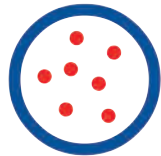


# Labconsult

## PLANT SCIENCE, PLANT BREEDING AND HORTICULTURE

SUPPORTING YOUR  
**RESEARCH AND PRODUCTION**



PLANT TISSUE CULTURE  
AND MICROPROPAGATION



PLANT BIOLOGY  
RESEARCH



HORTICULTURE



PHYTOPATHOLOGY AND  
SEED LABORATORIES



Labconsult is an independent distributor that supports leading laboratories in the selection and supply of scientific accessories and instrumentation.

It is our mission to provide every lab with scientific expertise and innovative solutions.



### **Over 25 years of experience**

With over 25 years of experience and extensive market knowledge, we have built up an impressive portfolio of products, services and solutions to cover the needs of laboratory and production facilities.



### **Providing highly innovative Lab Equipment and Services**

At Labconsult we only offer Products & Services we believe in, all carefully selected to meet your needs. We are dedicated to develop and maintain long term relationships. This dedication allows us to continuously add real value to both our customers and suppliers. A great cooperation for everyone's success.



### **ISO9001 certified**

Being ISO 9001 certified, we embrace the concept of quality through continual improvement. We aim to enhance customer satisfaction and consistently provide products that meet customer and regulatory requirements.



### **Flexible, reliable and around-the-clock**

Based in Brussels and Ghent, we are able to service the whole Benelux on a flexible, reliable and round-the-clock way. A fast and professional attitude is our commitment to you.



### **Dedicated Team**

We have assembled a dedicated team by combining experienced individuals with young and innovative thinking minds. Both the technical know-how of our Application Engineers as well as the scientific knowledge of our Product Specialists make them indispensable in our team.

# Labconsult

## Plant Science, Plant Breeding and Horticulture Portfolio

Labconsult offers a comprehensive portfolio of products for Plant Science, Plant Breeding and Horticulture: reagents, labware, consumables, instrumentation and LED lighting.

This brochure gives you a global overview of available product groups, a list of most suppliers we represent and the most popular products highlighted.

Our website [www.labconsult.be](http://www.labconsult.be) shows our complete product portfolio, detailed product information, pricing and much more. You can search your product by description, article number or CAS number.

## Table of contents

PLANT MEDIA & BIOCHEMICALS	5
Media	6
Agars, Gelrite® and other Gelling Agents	7
Plant growth hormones, antibiotics, enzymes & other biochemicals	8
Phytopathology media	11
Cleaners and disinfectants	12
PLANT GROWTH & TISSUE CULTURE TOOLS	13
Growth containers & tools	14
Plant growth chambers	16
LED lighting	17
-OMICS RESEARCH PRODUCTS	20
Sample preparation kits for RNA, DNA, and protein purification	21
Homogenizing Equipment	22
PCR Enzymes, Master Mixes and related products	25
PCR Instruments and ancillary equipment	28
Gel Doc Imaging & Electrophoresis	30
GENERAL LAB INSTRUMENTATION	33
Automated Media preparation and distribution	34
Laminar Flow Cabinets	36
Fume hoods, safety cabinets and storage	37
Laboratory autoclaves	38
Incubators, Ovens, Refrigerators, Freezers	39
Water purification systems	41
Laboratory washers	42
Benchtop lab instruments	43

# PLANT MEDIA & BIOCHEMICALS



# Media



Choosing the proper medium formulation for your tissue culture work is one part of the work. Getting it from the right source is so important. Whether you are looking for a standard formulation or your own customized recipe, Duchefa is the preferred partner of hundreds of labs all over the world.

We offer **more than 40 published tissue culture media** (micro- and macro elements, with or without vitamins) in different volume sizes to prepare medium **from 1 liter to 100 liters**.

Using ready-made mineral mixtures, the creation of variations in the concentration of the different components is difficult. While addition of extra minerals is feasible, decreasing the concentration of others is impossible. In practice this may prove to be a disadvantage. In order to counterbalance this drawback, Duchefa Biochemie B.V. has created micro and macro mixtures. The medium is divided into micro and macro components and ammonium or potassium nitrate, so the concentration of media components can be varied as needed:

- MICRO-MACRO GAMBORG'S B5 MEDIUM
- MICRO-MACRO MURASHIGE & SKOOG MEDIUM
- MICRO-MACRO NITSCH MEDIUM



## Custom manufacturing

Custom manufacturing is our greatest strength. With a focus on the unique needs of our customers, we are able to offer a custom manufacturing program that allows us to meet your demands

- quick turnaround times
- flexible packaging options
- customized delivery schedules
- limited minimum orders



# Agars, Gelrite® and other Gelling Agents



Agar is a natural product obtained from various types of seaweeds. All qualities have been extensively analyzed for the remaining mineral grade, limpidity, gel strength, ash content and humidity.

For quantities of 25 kg or more, we can make a batch reservation.  
After testing a sample, we deliver the reservation.

**Plant Agar** is applied in plant cell and tissue culture as a general purpose agar that combines a good quality with a favorable price. Plant Agar can be used in a minimal concentration of 5.5 g/l to obtain a solid gel.

**Micro Agar** is a purified agar with a high gel strength and excellent properties for use in plant cell and tissue culture as well as microbiological work.

**Gelrite®** is a naturally derived gelling polymer that can be used in a variety of applications as a solidification agent instead of agar. Produced by microbial fermentation, Gelrite is a highly purified natural anionic polysaccharide without the variations commonly associated with agar. Gelrite forms rigid, brittle, agar like gels at approximately half the use level of agar in presence of soluble salts like  $Mg^{2+}$  and  $Ca^{2+}$ .

Gels prepared with Gelrite are remarkably clear in comparison to those based on regular agar. As opposed to standard agar, Gelrite contains no contaminating matters (e.g., phenolic compounds) that are toxic to certain sensitive organisms.



# Plant growth hormones, antibiotics, enzymes & other biochemicals



## Duchefa Biochemie

### | Plant hormones

	<i>Effects in tissue culture</i>	<i>Molulators of metabolism, action or transport</i>
<b>Auxins</b>	<ul style="list-style-type: none"> <li>• Formation of meristems of adventitious roots</li> <li>• Induction of somatic embryos (in particular 2,4-D)</li> <li>• Cell division</li> <li>• Callus formation and growth</li> <li>• Inhibition of outgrowth of axillary buds</li> <li>• Inhibition of root growth</li> </ul>	<ul style="list-style-type: none"> <li>• 2,3,4-Triiodobenzoic acid (TIBA) and 1-N-naphthylphthalamic acid (NPA) inhibit polar auxin transport</li> <li>• p-Chlorophenoxyisobutyric acid (PCIB) inhibits auxin action as a genuine anti-auxin by binding to the auxin receptor</li> <li>• Phenolic compounds (e.g. ferulic acid or phloroglucinol) inhibit auxin oxidation</li> <li>• Riboflavin strongly promotes photooxidation of IBA and IAA</li> </ul>
<b>Cytokinins</b>	<ul style="list-style-type: none"> <li>• Adventitious shoot formation</li> <li>• Inhibition of adventitious root formation</li> <li>• Cell division</li> <li>• Callus formation and growth</li> <li>• Stimulation of outgrowth of axillary buds</li> <li>• Inhibition of shoot elongation</li> <li>• Inhibition of leaf senescence</li> </ul>	<ul style="list-style-type: none"> <li>• Compounds have been reported that inhibit cytokinin synthesis (lovastatin), degradation and action. The various effects are, however, not yet well studied or ambiguous.</li> </ul>
<b>Gibberellins</b>	<ul style="list-style-type: none"> <li>• Shoot elongation</li> <li>• Release from dormancy in seeds, somatic embryos, apical buds and bulbs</li> <li>• Inhibition of adventitious root formation</li> <li>• Synthesis-inhibitors promote root formation</li> <li>• Synthesis-inhibitors promote tuber, corm and bulb</li> <li>• Synthesis-inhibitors inhibit shoot elongation</li> <li>• Synthesis-inhibitors facilitate acclimatization</li> </ul>	<ul style="list-style-type: none"> <li>• There are various gibberellin synthesis inhibitors, among others paclobutrazole, ancymidol and flurprimidol</li> </ul>
<b>Ethylene</b>	<ul style="list-style-type: none"> <li>• Senescence of leaves</li> <li>• Ripening of fruits</li> <li>• Promotion or inhibition of adventitious regeneration (depending on the time of application or on the genotype?)</li> </ul>	<ul style="list-style-type: none"> <li>• 1-Aminocyclopropane-1-carboxylic acid (ACC) is a precursor of ethylene and is metabolized by plant tissues to ethylene</li> <li>• Aminoethoxyvinylglycine (AVG) inhibits ethylene synthesis. <math>\text{Co}^{2+}</math>, <math>\alpha</math>-aminoxy-acetic acid and <math>\alpha</math>-aminoisobutyric acid also inhibit ethylene synthesis but at a lower efficiency.</li> <li>• Silver ions inhibit ethylene action. Silver is applied as silverthiosulphate (STD) or <math>\text{AgNO}_3</math>.</li> <li>• <math>\text{KMnO}_4</math>, coated on porous grains effectively oxidizes ethylene.</li> </ul>
<b>Abscisic acid</b>	<ul style="list-style-type: none"> <li>• Maturation of somatic embryos</li> <li>• Facilitation of acclimatization</li> <li>• Bulb and tuber formation</li> <li>• Promotion of the development of dormancy</li> </ul>	<ul style="list-style-type: none"> <li>• Fluridone inhibits ABA synthesis. As it acts by inhibiting an early step in carotenoid synthesis, plants bleach. However, fluridone does not seem to be toxic. Paclobutrazol also inhibits ABA synthesis.</li> </ul>



## I Antibiotics & Antifungal agents

Duchefa Biochemie is a supplier of a wide range of antibiotics and antifungal agents.

Applications of these compounds are:

- Suppression of bacterial, fungal and mold growth in cell- and tissue cultures.
- Selective agents (in combination with resistance marker genes).

Antibiotics and antimycotics can be produced by various species of micro-organisms or by chemical synthesis. Most of our antibiotics and antifungal agents have been tested for use in cell cultures and have no cytotoxic effects. Some have been specially tested for use in plant cell and tissue cultures.

If you have any questions regarding the use of antibiotics, please don't hesitate to contact us. With internal pharmaceutical, biochemical and microbiological knowledge available, we will be able to give you an answer in most cases.

### Inhibitors of Bacterial Cell Wall Synthesis

- |                 |                |              |
|-----------------|----------------|--------------|
| • Penicillins   | Cephalosporins | Others       |
| • Ampicillin    | • Cefalexin    | • Bactiracin |
| • Amoxycillin   | • Cefotaxim    | • Cycloserin |
| • Carbenicillin |                | • Vancomycin |
| • Penicillin G  |                |              |
| • Ticarcillin   |                |              |

### Bactericide Inhibitors of Protein Synthesis: Aminoglycosides

- |              |                |                |
|--------------|----------------|----------------|
| • Gentamycin | • Tobramycin   | • Streptomycin |
| • Kanamycin  | • Hygromycin B | • G-418        |
| • Paromycin  | • Neomycin     |                |

### Bacteriostatic Inhibitors of Protein Synthesis

- |                     |                  |
|---------------------|------------------|
| • Chloramphenicol   | • Lincomycin     |
| • Chlortetracycline | • Oxytetracyclin |
| • Clindamycin       | • Spectinomycin  |
| • Doxycyclin        | • Tetracyclin    |
| • Erythromycin      |                  |

### Antifungal Agents

- |                  |                 |
|------------------|-----------------|
| • Amphotericin B | • Nystatin      |
| • Miconazole     | • Cycloheximide |

### Inhibitors of Nucleic Acid Metabolism

- |                  |               |
|------------------|---------------|
| • Amsacrine      | • Doxorubicin |
| • Rifampicin     | • Mitomycin C |
| • Nalidixic acid |               |

### Antimetabolites

- |                 |                    |
|-----------------|--------------------|
| • Methotrexate  | • Trimethoprim     |
| • Metronidazole | • Sulphametoxazole |
| • Miconazole    |                    |

### Nucleic Acid Analogues

- |                  |                    |
|------------------|--------------------|
| • 5-Fluorouracil | • 6-Mercaptopurine |
|------------------|--------------------|



**Plant Cell**  
TECHNOLOGY

Plant Preservative Mixture (PPM™), is a broad-spectrum biocide/fungicide. PPM™ is the ultimate solution to the struggle against microbial airborne, waterborne and endogenous contamination.

Available in 100ml, 250ml, 500ml and 1l.



## I Enzymes

**CELLULASE R-10:** Routinely used for the isolation of protoplasts due to its ability to degrade cell walls. Cellulase "Onozuka R-10" is often used in combination with Macerozyme R-10

**CELLULASE Onozuka RS** contains a very high activity of decomposing natural celluloses. This type of cellulase can be used to obtain protoplasts in a very short time and dissolves cell walls of a wider range of plants.

**MACEROZYME R-10:** Macerating Enzyme from *Rhizopus* sp. Macerozyme is well suited for the isolation of plant cells and is often used in combination with cellulase.

## I Chemicals

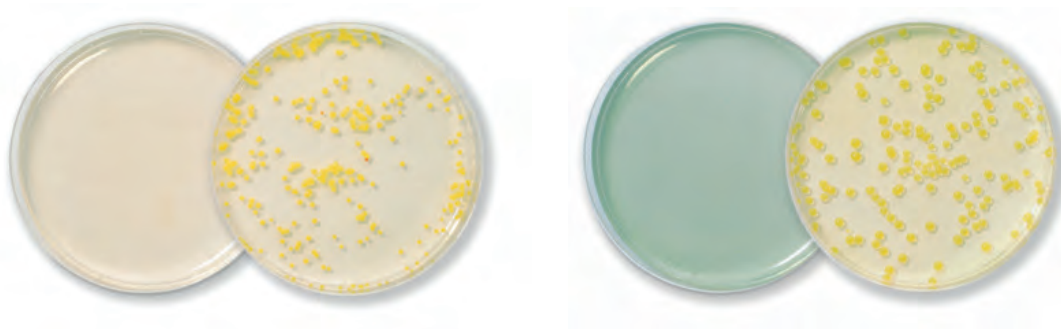
We offer a very broad range of Biochemicals, Vitamins, Buffers & other Reagents for Plant Biology research and Tissue Culture. Visit our webshop or contact us with your specific inquiry.



## Phytopathology media



Duchefa produces an extensive range of phytopathology media and media used in seed health testing. Since production takes place in their own laboratories, Duchefa is also able to manufacture custom made media according to laboratory specifications. Obviously, strict confidentiality is guaranteed.



- Bacteria Screening Medium 523
- CKTM Medium
- Czapek Dox Agar, CDA
- Czapek Dox Broth, CDB
- D2ANX Medium
- KB Medium (King's B Medium)
- KBBC Medium
- KBZ Medium
- Leifert and Waites Sterility test Medium
- Luria Broth Agar, Miller
- Luria Broth Base, Miller
- Malt Agar (MA)
- mCS20ABN Medium
- mD5A Medium
- mFS Medium
- mKM Medium
- MSP Medium
- MT Medium
- mTBM medium
- mTMB Medium
- mXCP1 Medium
- MXV medium
- PSM medium
- PTSA Medium
- SCM Medium
- SNAC medium
- YDC medium



## Cleaners and disinfectants



Eurodenaturated Ethanol in 5 L cans,  
200 L drums and 1000 L IBC



For over 60 years, Laboratoire Huckert's is helping you to control the risk of infection. An expert in bio-decontamination and disinfection, Huckert produces and develops two Premium ranges: **UMONIUM<sup>38</sup>** for disinfection and **PHYTOGEL** for skincare.



Do you have a need to monitor the environment for bacterial and or fungal contamination? Protect your plant breeding activities and monitor the air cleanliness by using a consistent biological airsampling method.



# PLANT GROWTH & TISSUE CULTURE TOOLS



## Growth containers & tools



### I The full-gas microbox

Tissue culture vessels with the revolutionary breathing system for carefree micropropagation! Polypropylene Transparent containers and hermetically closing covers with filter.

The **Microbox** is a clear polypropylene box, equipped with a hermetically closing polypropylene cover. The **cover** is made of crystal-clear plastic and provided with a filter battery. Each **filter battery** consists of a double row of filter wicks, i.e. micro-channels filled with hydrophobic filtering material.

<i>Kv value for:</i>	<i>round Microboxes</i>	<i>oval Microboxes</i>
<input type="checkbox"/> White filter (L)	9,87 GR / day	7,44 GR / day
<input checked="" type="checkbox"/> Yellow filter (XL)	13,09 GR / day	9,84 GR / day
<input checked="" type="checkbox"/> Red filter (XXL)	15,58 GR / day	10,83 GR / day
<input checked="" type="checkbox"/> Green filter (XXL+)*	81,35 GR / day	62,87 GR / day

\* XXL+ leaves very much air through the filter, which could possibly cause dehydration



### I Sterile paper cutting pads

30 pieces per bag., size 13x20 cm



### I Culture tubes "DE WIT"

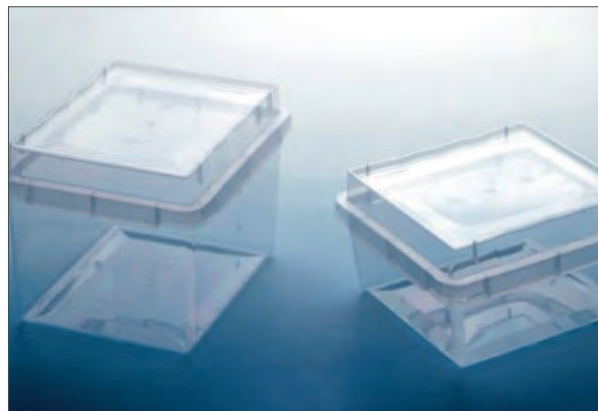
Polycarbonate, Gamma Radiated Height 130 mm, diameter middle 27 mm, diameter bottom 10 mm.

Culture Tubes "De Wit" are specifically designed for in Vitro Tissue Culture. The conical shape of the tubes provides enough space to grow while using a limited quantity of medium.



## I Steri Vent Containers

The newly developed Steri Vent Container is the successor of the successful Vitro Vent container. The completely new design contains many functional and ergonomic improvements. The Steri Vent is made of highly purified and totally transparent polypropylene, which results in a firm and crystal clear plant tissue culture container. Steri Vent containers are sterilized during the production process and do not need gamma irradiation, which causes discoloration of the polypropylene and detrimental chemical reactions.



## I Tools

- Forceps 23 cm length stainless steel
- Forceps 30 cm length stainless steel
- Scalpel handle ergonomic, 24 an 18 cm, stainless steel
- Scalpel blades from stainless steel or carbon Steel n° 10 till n°25
- Stainless steel rest for holding sterile forceps and scalpel-handles



## I Glass bead sterilizers

Our glass bead sterilizers have a round tube containing glass beads that heats up to approximately 300°C, providing an environment that is able to sterilize utensils such as forceps and scalpel blades and holders. The temperature can be adjusted to the desired temperature via the analogue regulator on the outside.



## I Leukopor ventilating sealing tape

Available sizes:

- 1.25 cm x 9.2 m
- 2.50 cm x 9.2 m



# Plant growth chambers



Conviron is the world leading supplier of controlled environments for plant science and other research applications. Conviron's controlled environments provide precise, uniform, and repeatable control of numerous environmental parameters.

## GEN 1000

REACH-IN

One Chamber. Four Applications.

### CAPACITY

- 781L volume
- 0,58 - 2,1 m<sup>2</sup> shelf space

### TEMPERATURE

- + 4 °C to 40 °C lights off
- + 10 °C to 45 °C lights on
- Control of ± 0,5 °C

### LIGHTING

- Standard fluorescent lighting
- Optional energy-saving LEDs
- Dimmable lighting

### HUMIDITY

- Optional additive humidity up to 90% RH
- Optional dehumidification

### MOBILITY

- Heavy duty, front locking casters
- Adjustable leveling bolts

### UTILITIES

- Drain hose
- Optional drain pan and pump
- 50Hz and 60Hz models



### CONTROL AND MONITORING

- 7" HD full color touchscreen
- Intuitive graphic interface
- Advanced programming, control & reporting
- Optional integration with Argus Controls

### REFRIGERATION

- Top-mounted air-cooled condensing unit with hot gas bypass for continuous compressor operation and tight temperature control
- Space saving design and easy access for maintenance

### ACCESS

- Light-tight door gasket seal with keyed lock
- Optional observation window
- Instrument port

### UNIFORMITY

- Engineered airflow and perforated plenums for uniformity
- Upward or horizontal airflow to suit shelving and applications



# LED lighting



## 10 Years of Excellence

Since 2009 we have been committed to creating the best LED grow lights on the market, enabling growers to increase yields and quality while saving energy. With a strong focus on plant biology R&D and one of the largest patent portfolios in the horticulture lighting industry, we are true pioneers of the high quality LED grow light solutions.



Hundreds of clients around the world rely on Valoya technology, including 8 out of 10 of the world’s largest agricultural companies.

As our customers, you will receive the support and care of our photobiologists, seed to sale.

## Choose a Spectrum of your needs

### Solray™

Optimized sunlight for commercial horticulture and research applications.

All growth stages.

A balanced range of wavelengths from UV to FR suitable for all growth stages. It has been tested on and is suitable for most plant species cultivated worldwide. Solray works as both sole source or supplemental light.

UV	B	G	R	FR
1 %	24 %	34 %	38 %	3 %
PAR	CCT	CRI	B:G	R:FR
96 %	4600	95	0,8	14,0

### NS1 & NS12

Sun-like, wide spectrum for research and biotech.

All growth stages.

The spectrum that illuminates the chambers and greenhouses of some of the world’s largest universities, research institutes and agricultural companies.

Table below expresses data for NS1 (upper row) / NS12 (lower row).

UV	B	G	R	FR
1%	20%	39%	35%	5%
0,5%	21%	38%	35%	6%
PAR	CCT	CRI	B:G	R:FR
94%	4800	90	0,7	10,4
94%	5000	91	0,6	4,6

### AP67

Spectrum for vegetative and strong generative growth.

**Vegetative growth, flowering, tissue culture, propagation.**

Designed and proven to quickly boost plant biomass and induce flowering.

UV	B	G	R	FR
0 %	14 %	16 %	53 %	17 %
PAR	CCT	CRI	B:G	R:FR
83 %	2500	70	1,2	3,3

### AP673L

Spectrum for strong vegetative growth.

**Vegetative growth, tissue culture, propagation.**

Designed and proven to quickly boost plant biomass and produce plants saturated with flavor and nutrients. Ideal for the cultivation of leafy greens.

UV	B	G	R	FR
0 %	12 %	19 %	61 %	8 %
PAR	CCT	CRI	B:G	R:FR
92 %	2000	60	1,8	5,5

### G2

Spectrum for enhancing vernalization process, flowering and stem elongation.

**Vernalization, flowering, rooting.**

Designed to shorten the vernalization period of species which require a cold period in order to flower. The spectrum is also ideal for long day plants as a night interruption.

UV	B	G	R	FR
0 %	8 %	2 %	65 %	25 %
PAR	CCT	CRI	B:G	R:FR
75 %	NA	NA	25,9	3,1

## Choose a Form Factor of your needs

### L-series



Rooms and chambers, tissue culture and vertical farming.

- Non-dimmable
- Slim, retro-fit
- IP64

### C-series



Rooms and chambers, tissue culture and vertical farming.

- Dimmable
- IP66

### BX-series



Rooms and chambers, vertical farming, greenhouses, and HPS hybrid.

- Dimmable
- IP67

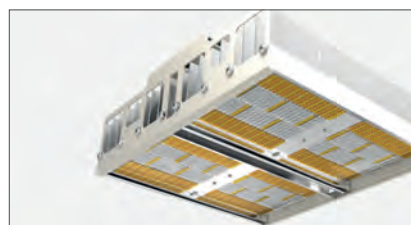
### BL-series



Greenhouses, rooms and chambers and HPS hybrid.

- Non-dimmable
- Chainable
- IP66

### RX-series



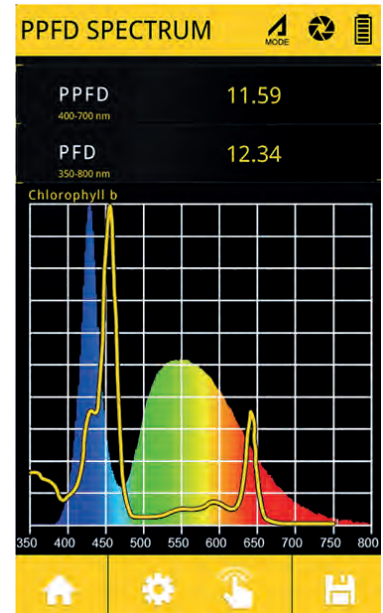
Greenhouses and HPS hybrid.

- Dimmable
- High power
- IP55

# UPRtek

The burgeoning indoor horticulture industry has resulted in a booming market for Grow Lights. Whether augmenting sunlight or using it as the main source of light energy, the practice and proper usage of Grow Lights will have a significant impact on the appearance, taste and shape of a plant. And there is only one way to practically ensure the quality and quantity of light over a large indoor farming area and that is to use a light meter. But not all light meters are designed with grow lights in mind.

UPRTek spectrometers are geared specifically for grow lights with both spectral and quantitative measurements allowing growers and researchers a tool for getting their arms around the fickle nature of growing plants with artificial lights.



The PG200N Handheld Spectral PAR Meter works in the PAR ( 350 nm – 800 nm) and expresses PPFD values in  $\mu\text{mol}/\text{m}^2/\text{s}$  and PPF in  $\mu\text{mol}/\text{s}$ , an ideal tool for measurements of light which stimulates plant growth and is designed to be suitable for laboratory applications. The spectrometer is enriched with a high resolution and extended spectral range.

The handheld spectrometer is suitable for a wide range of applications and offers a large selection of various measurements.

- Ideal for greenhouse, growth room, growth chamber and outdoor usage
- Access results immediately on the large, bright color screen. Compare spectra in overlay mode
- Do 5 measurements with one click. Choose from over 30 parameters. Compare results side by side

# -OMICS RESEARCH PRODUCTS



# Sample preparation kits for RNA, DNA, and protein purification

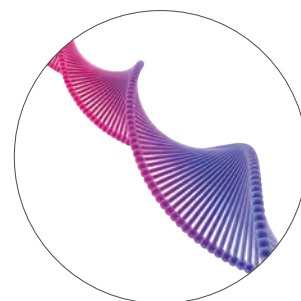


## ■ DNA Purification Kits

Plant DNA, RNA, microRNA Isolation and Purification Kits

Superior performance for challenging plant samples

- Plant/Fungi Total RNA Purification Kit
- Plant microRNA Purification kit
- Plant RNA/DNA Purification kit
- Plant/Fungi DNA Isolation Kit
- Plant DNA Isolation Kit (Magnetic bead system)



# Homogenizing Equipment



## I Bead Ruptor 24 Elite

Omni Bead Ruptor 24 Elite Bead Mill Homogenizing System Includes Bead Ruptor 24 motor drive and User Manual. Bead Ruptor tube carriages and disposable tubes sold separately. The Bead Ruptor 24 Elite is the most advanced and powerful bead mill homogenizer available.

It is designed for grinding, lysing, and homogenizing biological samples prior to molecular extraction. Available with a wide range of accessories the Bead Ruptor 24 Elite enables processing of samples in volumes ranging from 0.5 mL to 50 mL.

The optional Bead Ruptor 24 Cryo Cooling Unit is designed to prevent the increase of sample temperature during the homogenization process.

The Bead Ruptor 24 Elite unique tube carriage motion coupled with sample specific bead beating materials ensure that a thorough homogenate is achieved regardless of the sample type. The high lysing efficiency of the Bead Ruptor 24 Elite results in an increase in nucleic acid, protein and small molecules yields and increases the sensitivity of the downstream assay.





	<b>Bead Ruptor 96</b>	<b>Bead Ruptor 24 Elite</b>	<b>Bead Ruptor 12</b>	<b>Bead Ruptor 4</b>
<b>Maximum Sample Capacity</b>	576	96	16	4
<b>Tube Capability</b>	0.5, 1.5, 2 mL	0.5, 1.5, 2, 7, 15, 30, 50 mL	0.5, 1.5, 2, 7 mL	0.5, 1.5, 2, 7 mL
<b>Well Plates</b>	✓	-	-	-
<b>Speed Control</b>	3 - 30 Hz	0.8 - 8 ms	0.8 - 6 ms	1 - 5 ms
<b>Run Time</b>	5sec - 99min	1sec - 9.59min	1sec - 9.59min	1sec - 5min
<b>Processing Range</b>	25 µl - 50 mL	25 µl - 50 mL	25 µl - 7 mL	25 µl - 7 mL
<b>Savable Protocols</b>	-	✓	✓	-
<b>Weight</b>	42kg	29,5kg	29,5kg	7,5kg
<b>Dimensions</b>	W: 38cm, H: 43cm, L: 24cm	W: 38cm, H: 43cm, L: 33cm	W: 38cm, H: 43cm, L: 33cm	W: 25cm, H: 22cm, L: 29cm
<b>Touch Screen</b>	-	✓	-	-

## BR-Cryo Cooling Unit

### For use with the Bead Ruptor 24 Elite

The BR-Cryo Cooling Unit is compatible with the Bead Ruptor 24 and is designed to prevent the increase of sample temperature during the homogenization process. Friction generated through the bead milling process generates heat that is imparted to the sample. In order to maintain a constant processing temperature during homogenization, the BR-Cryo passes chilled air (-100°C to -50°C) into the sample processing chamber and across the sample tubes to dissipate heat.

#### Product features:

- Adjustable cooling rate
- Compatible with liquid nitrogen or dry ice with ethanol
- BR-Cryo maintains sample temperatures from 4°C to ambient
- Prevent protein degradation
- Ensure RNA stability
- Prevent enzyme activation
- 1-year warranty



# I Pre-filled Bead Mill Tubes and Bulk Beads



Bead Media	Tube Size	Bead Size	Description	Quantity	Order #	Bead Ruptor Compatibility			DNase/Rnase Free	Microbial DNA Free	
						BR4	BR12	BR 24			
Glass	2 mL	0.1 mm	Micro-Organism Lysing Mix	50	19-621	■	■	■	■		
		0.5 mm	Tough Micro-Organism Lysing Mix	50	19-622	■	■	■	■		
		0.5 mm	Tough Micro-Organism Lysing Mix	50	19-622D	■	■	■	■	■	
Garnet	0.5 mL	0.15 mm	Small Volume Micro-Organism Lysing Mix	50	19-623	■	■	■	■		
	2 mL	0.7 mm	Hard & Fibrous Tissue Homogenizing Mix	50	19-624	■	■	■	■		
Carbide	0.5 mL	0.25 mm	RNA Extractions, Micro-Organism & Soil Homogenizing Mix	50	19-625	■	■	■	■		
Metal	1.5 mL	2.4 mm	Hard Tissue Grinding Mix	50	19-610	■			■		
	2 mL	2.4 mm	Hard Tissue Grinding Mix	50	19-620	■	■	■	■		
		2.4 mm	Hard Tissue Grinding Mix	50	19-620D	■	■	■	■	■	
	7 mL	2.4 mm	Hard Tissue Grinding Mix	50	19-670	■	■	■			
	30 mL	2.4 mm	Hard Tissue Grinding Mix	50	19-6350			5 m/s			
			Hard Tissue Impaction Grinding Mix with 1/4" Ceramic	50	19-6350Z			5 m/s			
Ceramic	0.5 mL	1.4 mm	Small Volume Soft Tissue Homogenizing Mix	50	19-626	■	■	■	■		
	1.5 mL	1.4 mm	Soft Tissue Homogenizing Mix	50	19-617	■		5 m/s	■		
		2.8 mm	Hard Tissue Homogenizing Mix	50	19-618	■			■		
	2 mL	0.5 mm	Universal Microbial Grinding Mix - Nuclease Free	50	19-631	■	■	■	■		
		0.5 mm	Universal Microbial Grinding Mix -Nuclease and Microbial DNA Free	50	19-631D	■	■	■	■	■	
		0.1 mm	Universal Microbial Grinding Mix - Nuclease Free	50	19-632	■	■	■	■	■	
		0.1 mm	Universal Microbial Grinding Mix -Nuclease and Microbial DNA Free	50	19-632D	■	■	■	■	■	
		1.4 mm	Soft Tissue Homogenizing Mix	50	19-627	■	■	■	■	■	
		1.4 mm	Soft Tissue Homogenizing Mix	50	19-627D	■	■	■	■	■	
		2.8 mm	Hard Tissue Homogenizing Mix	50	19-628	■	■	■	■		
		2.8 mm	Hard Tissue Homogenizing Mix	50	19-628D	■	■	■	■	■	
		7 mL	1.4 mm	Soft Tissue Homogenizing Mix	50	19-677	■	■	■		
			2.8 mm	Hard Tissue Homogenizing Mix	50	19-678	■	■	■		
	15 mL	2.8 mm	Hard Tissue Homogenizing Mix	50	19-6158			5 m/s			
				Soft Tissue Homogenizing Mix	50	19-6357			5 m/s		
30 mL		1.4 mm	Soft Tissue Impaction Homogenizing Mix with 1/4" Ceramic	50	19-6357Z			5 m/s			
				Hard Tissue Homogenizing Mix	50	19-6358			5 m/s		
50 mL		2.8 mm	Hard Tissue Impaction Homogenizing Mix with 1/4" Ceramic	50	19-6358Z			5 m/s			
50 mL	2.8 mm	Hard Tissue Homogenizing Mix	50	19-6508			5 m/s				

Note: In addition, we offer BULK PACKAGING of Prefilled Bead Tubes, Bulk Beads and Bulk Bead Mill Tubes. This is the most economical solution for high-throughput users. Feel free to ask us for more information!



# PCR Enzymes, Master Mixes and related products



highQu qPCR master mixes are well-known for their excellent performance and ease of use with minimum optimization required. Supplied with PCR water, optimized for both common and fast cycling workflows, they convince by their early Ct values, and provide reproducible results.

## I qPCR

highQu qPCR mastermixes are based on the small molecular inhibitor technology Hot Start PCR allowing to achieve highest sensitivity and specificity under both standard and fast qPCR cycling conditions. They provide excellent results on both AT and GC rich templates, in multiplexing and guaranty rapid extension with early Ct values with minimum or no optimization.

### ORA™ & ORA™ SEE qPCR Probe Mix

- qPCR assays based on specific probes: including TaqMan®, Molecular Beacons, Scorpions™ Probes
- Quantification of gDNA, cDNA, viral DNA, low copy number genes, gene expression analysis
- ORA™ SEE qPCR Probe Mix contains an inert blue dye for a better sample visibility and tracking
- ORA™ and ORA™ SEE qPCR Probe mixes are also available as ROX L (low ROX) and ROX H (high ROX)

### ORA™ & ORA™ SEE qPCR Green Mix

- qPCR from gDNA, cDNA, viral DNA, low copy number genes
- Relative gene expression analysis, absolute quantification
- qPCR assays based on fluorescence of intercalating dye
- ORA™ SEE qPCR Green Mix contains an inert blue dye for a better sample visibility and tracking
- ORA™ and ORA™ SEE qPCR Green mixes are also available as ROX L (low ROX) and ROX H (high ROX)

### ORA™ qPCR HRM Mix

High Resolution Melting analysis (HRM) is a fast and simple technique for identification of DNA sequence variations. It allows identifying single nucleotide differences by detecting minor changes in qPCR melting curves. HighQu ORA™ HRM qPCR Mix includes a proprietary intercalating saturating dye showing no inhibition for PCR. The dye has the same affinity for both AT or GC rich sequences what leads to highest accuracy in genotyping.

- Detection of sequence variations
- SNP genotyping
- Methylation analysis
- Mutation scanning

## I One Step RT qPCR

highQu 1Step RT qPCR mastermixes in combination with a blend of thermostable and extremely active Reverse Transcriptase & advanced RNase Inhibitor (RT Mix) allow for a single step one tube RT qPCR. To suit the broad instrument range the 1Step RT qPCR Probe Mixes are available in three versions – without ROX, with low or high ROX concentration.

### 1Step RT qPCR Probe Kits

- RT qPCR assays based on specific probes: including TaqMan®, Molecular Beacons, Scorpions™ Probes
- Quantification of any RNA template (mRNA, total RNA, viral RNA), low copy number genes

### 1Step RT qPCR Green Kits

- Relative gene expression analysis, absolute quantification of any RNA template (mRNA, total RNA, viral RNA), low copy number genes
- Intercalating dye fluorescence based qPCR on instruments calibrated with low ROX conc.

## I End-point PCR Enzymes & Master Mixes

	Standard		Hot Start	Robust, Long & Hot Start		High Fidelity	Direct
	ALLin™ (RED) Taq DNA polymerase	Taq DNA polymerase	ALLin™ Hot Start (HS RED) Taq Polymerase	ALLin™ RPH Polymerase	ALLin™ RPH Mastermix	ALLin™ HiFi DNA polymerase	SampleIN™ Direct PCR Kit
<b>Fast cycling</b>	✓		✓	✓	✓	✓	✓
<b>GC/AT rich PCR</b>	✓✓		✓✓	✓✓	✓	✓✓	✓
<b>Hot Start</b>			✓	✓	✓		✓
<b>High Sensitivity</b>			✓✓	✓	✓		✓
<b>Fidelity vs TAQ</b>	1x	1x	1x	5x	5x	50x	1x
<b>Long PCR</b>	Standard mix only			✓✓	✓✓	✓	
<b>Max. amplicon</b>	6kb	5kb	6kb	35kb	35kb	10kb	5kb
<b>High yields</b>	✓✓	✓	✓	✓✓	✓✓	✓	✓
<b>Direct PCR</b>	Colony	Colony	Colony, blood, urine	Colony, blood	Colony, blood	Colony	Mouse tail, ear, blood, tissues, swab, hair
<b>Multiplex PCR</b>	✓		✓✓	✓	✓		✓
<b>Classical PCR</b>		✓✓					
<b>Cloning</b>	TA	TA	TA	TA	TA	Blunt	TA
<b>Direct loading on gel</b>	RED mix only		RED mix only				RED mix
<b>ALLin™ Buffer* with dNTPs</b>	Standard mix only		Standard mix only	✓		✓	
<b>Mastermix</b>	RED mix only		RED mix only		✓		✓

## I RT PCR & Reverse Transcription

	<i>1Step RT PCR Kit</i>	<i>HighScriber™ Reverse Transcriptase Mix</i>	<i>qScriber™ cDNA Synthesis Kit</i>
<b>Description</b>	One-step RT PCR in one tube	cDNA synthesis of long transcripts at elevated temperature	Unbiased cDNA synthesis for qPCR
<b>Enhanced cDNA synthesis</b>	✓	✓	✓
<b>GC rich and complex templates</b>	✓	✓	✓
<b>Full-length cDNA transcripts up to 15 kb</b>		✓	
<b>High sensitivity</b>	✓	✓	✓
<b>One-step RT-PCR</b>	✓		
<b>Two-step RT-PCR</b>		✓	✓
<b>Two-step RT-qPCR</b>		✓	✓
<b>RNA protection from RNases</b>	✓	✓	✓

## I DNA Electrophoresis Stains

	<i>StainIN™ RED Nucleic Acid Stain</i>	<i>StainIN™ GREEN Nucleic Acid Stain</i>
<b>Fluorescence</b>	Red	DNA green, RNA red
<b>Excitation max.</b>	540nm	490nm
<b>Emission max.</b>	630nm	520nm and 635nm
<b>In gel staining during agarose electrophoresis</b>	✓	✓
<b>Staining of PAGE during electrophoresis</b>	✓	✓
<b>Post-run staining</b>	-	-
<b>DNA detection sensitivity</b>	0,3 - 0,6 ng	0,1 - 0,3 ng
<b>UV detection</b>	✓	✓
<b>Blue light detection</b>	-	✓
<b>Used as loading dye</b>	-	-
<b>Cloning compatible</b>	Yes, when UV exposure is minimal	Yes, under Blue light
<b>Filters to use</b>	Ethidium Bromide	SYBR® Green

# PCR Instruments and ancillary equipment



## I Eco 48 qPCR system

The Eco 48 qPCR system has the world most accurate thermal block of any qPCR system and an optical system with an ability to detect down to just 1 copy as well as being able to easily perform a 40 cycle protocol in 40 minutes utilising standard your standard chemistries.

The PCRmax Eco 48 real time PCR system is a high specification, economically priced real time thermal cycler that accommodates a unique 48-well polypropylene PCR plate utilising the same geometry as standard 384-well plates, but only 1/8 of the size.



## I AlphaCycler range

With the option for either single, dual or four block instruments throughput and scale are never a concern. The Alpha Cycler 1, 2 and 4 run an HD Quad Core Android tablet interface with features aimed to enhance the user experience and build quality to become the workhorse of any lab.

The PCRmax Alpha cyclers are developed to deliver not only the best quality data you can expect from PCRmax but also to innovate and exceed the high standards expected by the community.





## I DNA/RNA UV-cleaner boxes

DNA/RNA UV-cleaner box UVC/T-AR is designed for clean operations with DNA samples. UV-cleaner box provide protection against contamination.

UV-cleaner boxes are equipped with an open UV lamp installed in the upper hood. UV-radiation from the open lamps disinfects the working area inactivating DNA/RNA fragments during 15–30 min of exposure. A digital timer controls duration of the direct UV irradiation. A daylight lamp provides proper illumination of the working surface.

UV-cleaner boxes are equipped with a flow-type bactericidal UV cleaner–recirculator AR, which provides constant decontamination inside the box during operation.

UV cleaner–recirculator AR consists of a UV lamp, a fan and dust filters organized in a special body so that a user working with a UV-cleaner box is protected against UV light. The UV-recirculator processes 100 UV-cleaner box volumes per hour, creating permanent aseptic conditions of operation inside the box.



# Gel Doc Imaging & Electrophoresis



GEL company offers a complete range of GEL Systems, GEL Doc Imagers and GEL Accessories (GridCutters, Spot Pickers, Combs, Plates, Spacers, etc.)

## I Omega Imagers

### Transforming how you image gels and westerns

Our flexible gel documentation systems with a removable tablet to easily switch between applications. They are an exceptional DNA and protein imager with multiple light sources and a multi-position filter wheel.

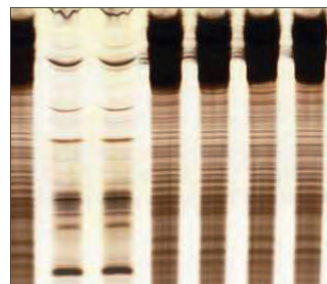
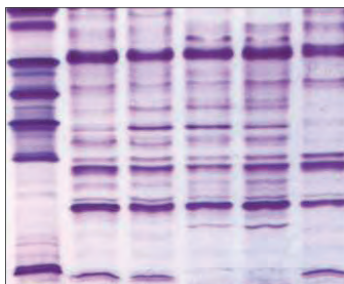


	<i>Function</i>	<i>Omega Lum™ W</i>	<i>Omega Lum™ C</i>	<i>Omega Lum™ G</i>	<i>Omega Fluor™ Plus</i>
<b>Applications</b>	Chemiluminescent Blots	✓	✓	✓	-
	Colorimetric Blots - DNA Gels - Protein Gels - X-ray film	✓	✓	✓	✓
	Multi-plex	✓	-	-	-
<b>Dyes &amp; Stains</b>	UV/Blue-excitable fluorescence - Colorimetric / absorbance	✓	✓	✓	✓
<b>Excitation Sources</b>	Epi-blue, epi-white, trans-white, trans-UV illumination (dual wavelength: 302 & 365 nm)	✓	✓	✓	✓
<b>Emission Filters</b>	Orange (590 nm)	✓	✓	✓	✓
	Blue (497 nm), Green (572 nm), Red (670 nm)	✓	optional	optional	optional
<b>System Specifications</b>	Resolution	8.3 MP	8.3 MP	6.0 MP	5.0 MP
	Dynamic Range (grayscale levels)	65536	65536	65536	4096
	SmartCapture Technology™	✓	✓	✓	✓
	Lens	Motorized	Motorized	Fixed	Fixed
	Cooling	Delta 50	Delta 50	Delta 40	None
	Filter Wheel	6-motorized	6-motorized	6-motorized	3-manual
	Integrated Computer (Tablet)	✓	✓	✓	✓
	Image Capture Software	✓	✓	✓	✓
	Analysis Software	✓	✓	✓	optional



## I Isoelectric Focusing

- SERVA Gels for Horizontal Isoelectric Focusing (IEF)
- SERVAGel™ for Vertical Isoelectric Focusing (IEF)
- SERVA Protein Standards for Isoelectric Focusing (IEF)
- SERVALYT™ Carrier Ampholytes
- Supporting Films and Fabrics for Casting Gels
- Reagents and Accessories to Cast and Run Gels
- SERVA Stains for IEF Gels



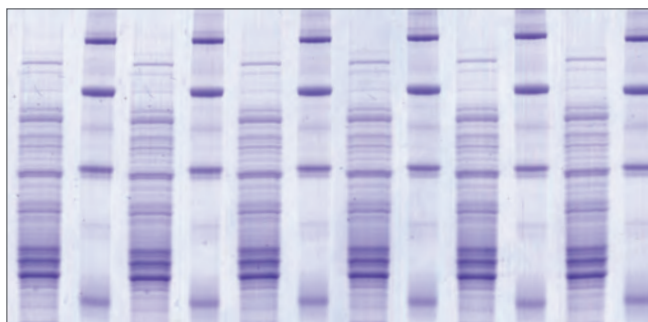
## HPE™ BlueHorizon™ - Optimized Performance in Flatbed Gel Electrophoresis

- Compatible with all types of flatbed gel electrophoresis
- Highest resolution achieved using premium quality ceramic cooling plate
- Thin polyacrylamide gels, format up to 260 mm x 205 mm
- Broad range of precast gels for versatile applications available
- IQ/OQ/PQ qualification on request
- Technical support and workshops
- Replacement of MultiPhor II™: compatible format
- Complete range of reagents and consumables for self-casting of flatbed gels available



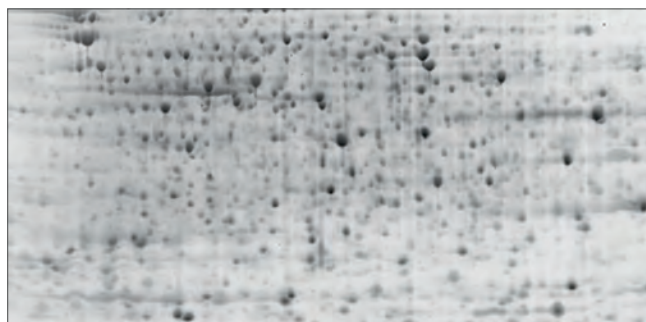
## SDS PAA Gel Electrophoresis and Native PAGE

- SERVAGel™ for Vertical SDS PAGE
- SERVA Gels for Horizontal PAGE
- Gel Media, Electrophoresis Buffers and Reagents
- SERVA Protein Stains for SDS PAGE and Native PAGE
- SERVA Protein Standards for SDS PAGE and Native PAGE



## I 2D Electrophoresis

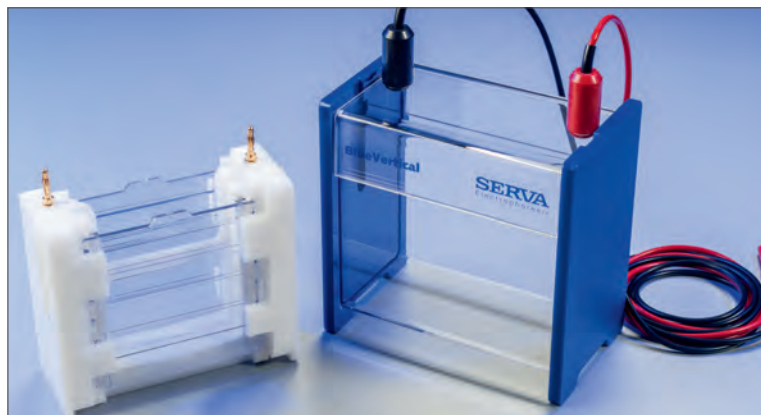
- SERVA Gels for Horizontal 2D Electrophoresis
- SERVA Gels for Vertical 2D Electrophoresis
- SERVA IPG BlueStrips
- SERVA Proteome Markers for 2D Electrophoresis
- SERVA Stains for 2D Gels



### BlueVertical™ PRiME™

The BlueVertical™ PRiME™ is a dual mini tank system to operate one or two precast gels. It accommodates SERVAGel™ TG PRiME™, all other types of SERVAGel™ and all other commercially available precast gels with an outer cassette dimension of 10 cm x 10 cm x 0.7 cm. A casting stand and accessories for self-casting of mini vertical polyacrylamide gels are available. Separation of proteins by SDS PAGE, native PAGE and IEF can be carried out as well as separation of nucleic acids

- Superb results
- Top resolution
- Easy and safe to handle
- Unique, leak-free clamp system
- Smart design – made in Germany
- For SERVAGel™ precast gels



## Western Blotting

- Protein Standards for Western Blotting
- Reagents and Kits for Protein Transfer in Western Blotting
- Transfer Membranes for Western Blotting
- Blocking and Detection Reagents for Western Blotting

### BlueBlot™ Semi-Dry Blotter - Fast and Gentle Protein Transfer from Gel to Membrane

- Platinum-covered steel net as anode
- Spring-mounted anode for blotting stacks
- Stainless steel plate as cathode
- Blotting area: 11 cm x 11 cm, 17 cm x 17 cm and 24 cm x 26 cm
- Deployable for thicker gels and blotting stacks



## Nucleic Acid Electrophoresis

- Agarose Gel Media, Buffers and Reagents
- Serva Stains for Nucleic Acids
- Serva DNA Standards

### BlueMarine™ Submarine Chambers

- Robust acrylic construction
- made in Germany
- UV transparent gel trays
- Casting gates for leak-free gel pouring





# GENERAL LAB INSTRUMENTATION



# Automated Media preparation and distribution

## MEDIAWEL®

### Media preparator

**Safety lid** (locked above 80°C)



Uphill & downhill -  
Filtration - Contamination  
prevention  
  
Double pressure  
monitoring



**Large stirrer**  
(wide viscosity range)



**Multicolour visual alarms**

**7" touch screen LCD**  
intuitive display



**Wifi live communication**

**Trapdoor** (easy cleaning of the bowl)

**Medical wheels**



2.5 to 30 liters



30 - 125°C +/- 0.5°C



60 - 90 mins

### Simplify



### Quality media

- Controlled temperature = perfect sterility & perfect fertility (T° precision: +/- 0,5°C)
- Continuous homogenization
- Large smooth stirrer (1807 cm²) for higher homogeneity. Slow stirring (9 adjustable speeds 20-110 rpm) to avoid bubbling
- Less handling = less contamination

### Traceability

- Temperature monitoring up to 3 points



# DISTRIWEL 440<sup>®</sup>

## Media pourer stacker

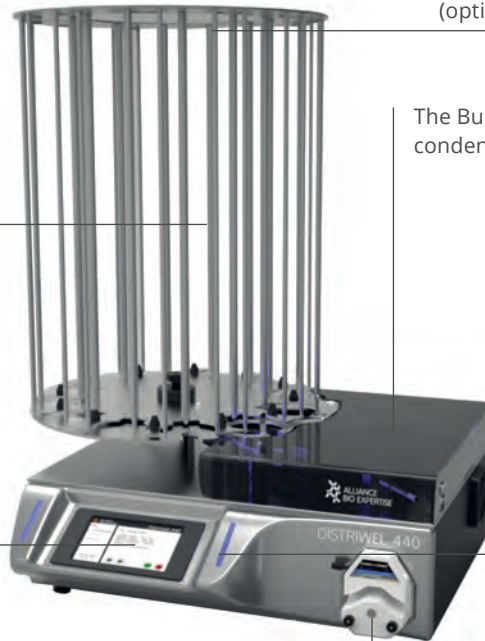


Ensure a flat poured media (bubble level integrated)



### Walkaway device

Up to 440 dishes filled in 30 mins



### Traceability

Print up to 25 characters (2 lines) on the Petri dish (optional laser printer)



The Built-in Peltier cooling effect reduces condensation and solidification time

### Aerobiocontamination prevention

Contamination prevention (UV lamp) while pouring + Plexiglas protection cover

### In-line blood addition option

### Multicolour visual alarms

7" touch screen intuitive display



Your culture media is accurately poured by a Masterflex<sup>™</sup> peristaltic pump

## Pack your ready to use dishes with the Minima



# DOSYWEL<sup>®</sup>

## Peristaltic pump



Up to 20 programs editable

- Volume (1 to 9999 ml)
- Number of doses (1 to 999)
- Time for interval (0,1 to 60,0 seconds)
- Pump speed (1 to 130% = 10 to 550 rpm)
- Diluent (batch, name, volume)
- Calibration mode (calibration starting the program, reminder each x sample)

Compact & light: 3,8 kg

# Laminar Flow Cabinets

## ESCO

### Airstream®

Laminar Flow Clean Benches, Horizontal and Vertical

- World's Leading Low Noise Laminar Flow Cabinet
- Energy-efficient DC ECM Motor with power consumption of only 155 watts
- With Standby Mode for more energy saving
- Stable and Self-compensating Flow
- With ISOCIDETM Antibacterial powder coating
- ULPA filter (up to ISO Class 3)
- With Real-time Airflow Monitoring
- With Fixed Sash and Sliding Sash option



## BIOAIR®

### AURA HZ

Horizontal laminar flow cabinet

- High efficiency washable polyurethane prefilters
- H14 class HEPA filter
- Electronic control air speed
- Working surface in stainless-steel (AISI304)
- Side panels in tempered glass
- Micromesh membrane on HEPA filter downstream surface for perfect airspeed distribution
- Up to four plugs installable near the light on the ceiling of the cabinet to leave working surface free
- Sizes: 1.2, 1.8



# Fume hoods, safety cabinets and storage



Norms & Regulations to follow:

- EN 14470-1 and EN 14470-2 on our safety cabinets for flammables,
- FM & OSHA for the cabinets for industries,
- NF X 15-211 - may 2009 for our ductless fume hoods,
- EN 15154-1 & EN 15154-2 for our safety showers and eye-washers.

## NF X 15-211 Ductless fume hoods - Filtering safety cabinets - Ventilation

When you manipulate chemicals, your health is endangered, due to the emanation of toxic vapors/powders. As to protect you and your environment, you have to manipulate your chemicals into a ductless fume hood equipped either with a molecular filter (activated coal filter), or with a particular filter (HEPA filter), or both.



## EN 14470-1 - EN 14470-2 safety cabinets

The flammable and/or explosive products have to be stored in safety cabinets. The cabinets EN 14470-1 have a fire resistance allowing protecting the products from a potential fire. We offer 30, 60 or 90 minutes fire resistance ; the 30 and 90 minute ones being also available in multirisks cabinets for the storage of several types of chemicals. On the other hand, the safety cabinets EN 14470-2 have a 30 minute fire resistance and allow protecting gas cylinders in case of a potential fire.



## Safety showers, eye-washers and first-aid equipments

The first-aid equipments as showers and eye-washers have to be installed near the zones of danger. Their access must be easy and indicated clearly by normalized pictograms (supplied with our equipments).



## Laboratory autoclaves



### HG Series – Vertical autoclaves premium

Fulfilling highest demands regarding performance and comfort



- **Certified according to the Pressure Equipment Directive 2014/68/EU**
- **Available in 4 sizes** with 50, 80, 113, 133 liters of effective usable volume
- **Innovative locking system** with motorized lid including pressure and temperature monitoring
- **Steam generation** in the chamber
- **High energy efficiency and long service life**
- **Rapid cooling** for short cooling times
- Electrical, mechanical and constructional factors guarantee the **highest level of quality and user protection**

### HV Series – Vertical autoclaves classic

Tireless, durable and ingeniously simple



- **Certified according to the Pressure Equipment Directive 2014/68/EU**
- **Available in 4 sizes** with 25, 50, 85 and 110 liters of effective usable volume
- **Simple, reliable and with a long service life**, your perfect choice for standard tasks
- Optionally available with **flexible temperature sensor** for the sterilization of liquids
- Electrical, mechanical and constructional factors guarantee **the highest level of quality and user protection**

### Table-top autoclaves

Space saving and convenient



The sterilizers are divided into 3 groups, the series "N", "S" and "B". Which autoclave is suitable for your application should be determined during an individual consultation. Our product specialists are happy to assist you.

# Incubators, Ovens, Refrigerators, Freezers



## Quality-Reliability-Precision

Memmert is an innovation leader in the development of **heating and drying ovens, incubators, cooled incubators, CO<sub>2</sub>-incubators, climate chambers and water- and oilbaths** for a wide range of applications in biological, pharmaceutical and food research as well as industrial quality testing. All parameters are controlled with the utmost precision to ensure a perfect atmosphere in our temperature control appliances.

## Certified cleanroom-compliant equipment

The suitability of the universal oven UF1060 as well as the climate chamber HPP1060 for use in the cleanroom has been confirmed by the independent Fraunhofer IPA (Institute for Manufacturing Engineering and Automation). These instruments are therefore entitled to bear the certificate Fraunhofer TESTED DEVICE®.



## Medical Devices – Temperature control for the medical industry

It is the hard-lined commitment to quality that has made Memmert a reliable partner in the medical sector and medical research industry. They are DIN EN ISO 13 485 certified since many years. Memmert offers ovens, sterilizers, incubators, CO<sub>2</sub>-incubators and blanket warmers classified as medical device according to the medical device directive (93/42/EEC).



Biostorage you can depend on

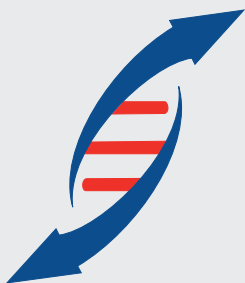
**Biostorage on your terms :  
the Gram BioLine Range**

- 125L to 1.400L cabinets
- -86°C to +20°C
- High performance and reliability
- Easy customization



**Arctiko biomedical freezers and refrigerators**

- Wide temperature and volume range
- 7L to 1.400L cabinets
- -150°C to +10°C
- Advanced and customized solutions



**Labconsult** offers a very complete range of temperature control solutions from different manufacturers to offer the optimal solution for you. Based on your specific quality and budget requirements, we assist you in the selection of the right instrument for your needs.



# Water purification systems



Our **arium® laboratory-grade water purification systems** feature an inspiring, application-oriented design. They enable you to perform your workflows faster and more reliably, simplifying your daily lab work while ensuring cost-efficient operation over the long term.



## Ultrapure Water Systems Type 1

arium® mini and arium® pro series offer a wide selection of modular-designed systems for producing Type 1 ultrapure water for mission-critical applications.



## Pure Water Systems Type 2

The arium® advance EDI provides Type 2 water in consistently high quality for supplying lab instruments with feed water and for preparing buffers and media to be used in non-critical applications.



## Pure Water Systems Type 3

The arium® advance RO delivers consistently high-quality Type 3 pure water for standard laboratory applications, such as feed water for lab instruments or water for preparation of non-critical buffers and solutions

## Combined Systems – Type 1 Combined with Type 2 or Type 3

### All in one: space-saving, innovative technology!

The **arium® mini plus** and the **arium® comfort systems** are the highlights of the **Sartorius lab water family**. These systems provide you with both **pure and ultrapure water** directly from the tap. Intermediately stored in the unique, disposable **arium® Bag** in its **bagtank system**, pure water is safely stored for immediate use or for further purification as Type 1 water.



## bagtank Technology – a Revolution in Lab Water Purification

### Innovative pure water storage

The innovative bagtank reliably stores Type 2 or Type 3 water produced by arium® comfort, in 20-, 50- or 100-liter disposable arium® Bags that are easy to exchange.

# Laboratory washers



Many cleaning solutions for each type of dirt

The laboratory environment is different and complex, for this reason Smeg developed a wide range of glassware washers and accessories that meet all requirements.



## AUSILAB™ - for laboratory glassware washers

- AUSILAB™ 210 Alkaline powder detergent
- AUSILAB™ 250 Neutralizing liquid acid
- AUSILAB™ 280 Alkaline liquid detergent
- AUSILAB™ 290 Alkaline liquid detergent according to the ECOCERT standard.
- AUSILAB™ 260 Regenerating salt > 98% NaCl.



## Benchtop lab instruments

A complete range of general benchtop lab instruments is offered. This chapter gives you a global overview of available product groups, a list of most suppliers we represent and the most popular products highlighted.

Our website [www.labconsult.be](http://www.labconsult.be) shows our complete product portfolio of lab instruments, detailed product information, pricing and much more.

### I Rockers – Shakers – Rotators – Rollers – Stirrers

**bioSan**



**PSU-20i**  
Multi-functional Orbital Shaker



**MPS-1**  
High-Speed Multi Plate Shaker



**ES-20/80**  
Orbital Shaker-Incubator

**stuart**



**SRT6, SRT9**  
Tube Roller



**SB161-3**  
Stirrer Multiposition



**SSM3, SSL3**  
3D gyratory rockers

### I Waterbaths – thermoregulators

**grant**

Unstirred, shaking Waterbaths (left)  
Heated Circulating Baths (right)



## | Spectrophotometers



Jenway offers five ranges of visible and UV/visible spectrophotometers which have been designed to suit a wide range of budgets, industries and applications. The range include single beam entry level spectrophotometers, split-beam spectrophotometers with a spectral bandwidth of 1.5nm; and advanced variable double beam spectrophotometers with a spectral bandwidth down to 0.5nm.



## | Liquid handling



**3D-IW8**  
Inteliwasher



**FTA-1**  
Aspirator with trap flask



**Levo plus**  
pipet filler



**Finnpipette**  
pipettes



**E1**  
ClipTip Pipetting Systems



## | Vortexes



**V-1 plus**  
Personal Vortex



**MSV-3500**  
Multi Speed Vortex



## | Balances and scales




**Equinox**  
Precision Analytical and Semi-Micro Balances



**Solis**  
Precision Analytical and Semi-Micro Balances




**Cubis® and Secura®**  
Precision Balances



**Cubis® and Entris®**  
Analytical Balances

## | Block heaters – heating mantles – hotplates




Block heater dual control



Hotplates




Electromantles

## | Homogenizing equipment




Mixer Homogenizers



Tissue Homogenizers



Bead Ruptor Elite

## | Centrifuges




**Microspin 12**  
High-speed Mini-centrifuge



**LMC-4200R**  
Laboratory refrigerated centrifuge




**Centrisart®**  
Microcentrifuges & Multi-function, Super Cooling, Benchtop Centrifuges



## | pH & Conductivity meters




Portable pH meters,  
Benchtop pH and conductivity meters




LABCONSULT offers a complete range of Lab Instruments providing an optimal solution for all your needs. We help you to select the right product for the right purpose based on your specific quality and budget requirements.





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