



SUGAR INDUSTRY SOLUTIONS

A RANGE OF QUALITY PRODUCTS
AND SERVICES TO SUIT THE NEEDS
OF THE SUGAR INDUSTRY

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Lasec® introduces our best-selling glassware and media bottle range for the Sugar Industry. We offer a wide range of high-quality, durable, temperature-resistant autoclavable bottles, perfect for laboratory use.

MEDIA BOTTLES

Clear, Round with Blue Screw Cap

Our borosilicate media bottles have a GL45 pouring ring, blue screw cap, are autoclave safe and have excellent thermal performance.

The 250 ml and 500 ml media bottles are our most popular media bottles for the Sugar Industry.



LASEC® CODE	DESCRIPTION	UOM
G2BOT021C-000050	Media Bottle - Clear 50 ml	Pk 10
G2BOT021C-000100	Media Bottle - Clear 100 ml	Pk 10
G2BOT021C-000250	Media Bottle - Clear 250 ml	Pk 10
G2BOT021C-000500	Media Bottle - Clear 500 ml	Pk 10
G2BOT021C-001000	Media Bottle - Clear 1000 ml	Pk 10
G2BOT021C-002000	Media Bottle - Clear 2000 ml	Pk 10
G2BOT021C-005000	Media Bottle - Clear 5000 ml	Pk 6
G2BOT021C-001000	Media Bottle - Clear 10 000 ml	Pk 10

The product images shown are for illustration purposes only and may not be an exact representation of the product.

E&OE

SUGAR FLASK - A-Certified 100 ml

Our sugar flasks are particularly ideal for the analysis of sugars.

The single-mark flask is calibrated more accurately and used for measuring the polarisation of a sugar solution. These flasks have a high volume above the graduation mark to allow for adequate mixing of a solution.

Type 2 class A

Lasec® Code: GLAS2F51M100C



VACUUM FILTRATION SYSTEM

The vacuum filtration apparatus is one of our most popular items used in the Sugar Industry. Made up of 3.3 borosilicate glass, a funnel sits on top of a fritted base that supports the filter disc, and a clamp holds it in place.

The assembly fits onto a filter flask, with the use of a stopper, to minimise the chance of liquid being drawn into the vacuum source.

Used for various applications including:

- Solvent purification
- Gravimetric analysis
- Radiochemical determinations

Consists of:

- 300 ml borosilicate glass funnel
- 47 mm aluminium spring clamp
- 47 mm glass base / filter holder
- Silicone stopper
- 1 l vacuum filter flask

Lasec® Code: GLAS3F1M26001



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E&OE

Popular, high-usage items for all laboratory and field applications. Durable range of certified containers and vessels of all shapes and sizes.



PETRI DISHES

- Polystyrene
- Vented
- Easy stacking



GLOVES

- Latex or nitrile powder-free
- Ambidextrous
- Non-sterile



CENTRIFUGE TUBES

- Polypropylene
- Graduated
- Sterile
- 15 and 50 ml
- Writing field
- 50 ml available in bulk, racked or skirted

SEALING (LABORATORY) FILM

- Perfect for sealing any consumable
- Product protection from moisture and volume loss
- Ability to stretch to 200 % of original size
- Provides secondary seal to secure lids, caps and stoppers
- 100 mm x 38 m roll



Lasec® Code: PPPG7016-05



Easily detect, enumerate and differentiate between microorganisms present in your production plant or end product using our comprehensive Neogen culture media range.

MEDIA

LASEC® CODE	DESCRIPTION	UOM
MNCM0021	Xylose Lysine Deoxycholate (XLD) Agar	500 gm
MNCM0144	Triple Sugar Iron Agar	500 gm
MNCM0126	MKTTn Broth (Muller Kauffmann)	500 gm
MNCM0250	Agar No.4 Plant Tissue Culture Grade	500 gm



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E&OE

Whether you need to remove impurities from your sample or collect suspended solids for testing, we have the solution for you.

Single-use syringe filters can remove particulate impurities as small as 0.2 µm from samples prior to analysis.

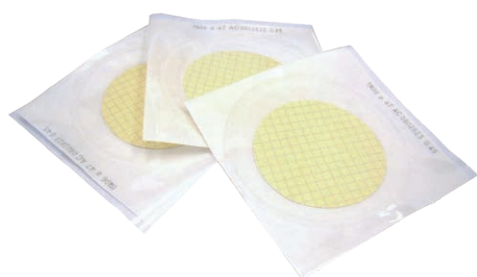
We also supply several types of filters such as cellulose acetate membranes and glass fibre (GF) membranes for use with the vacuum filtration apparatus. GF membranes offer high flow with effective recovery rates of microorganisms.

Our 3W filter paper is the perfect solution for your POL analyses.



FILTRATION

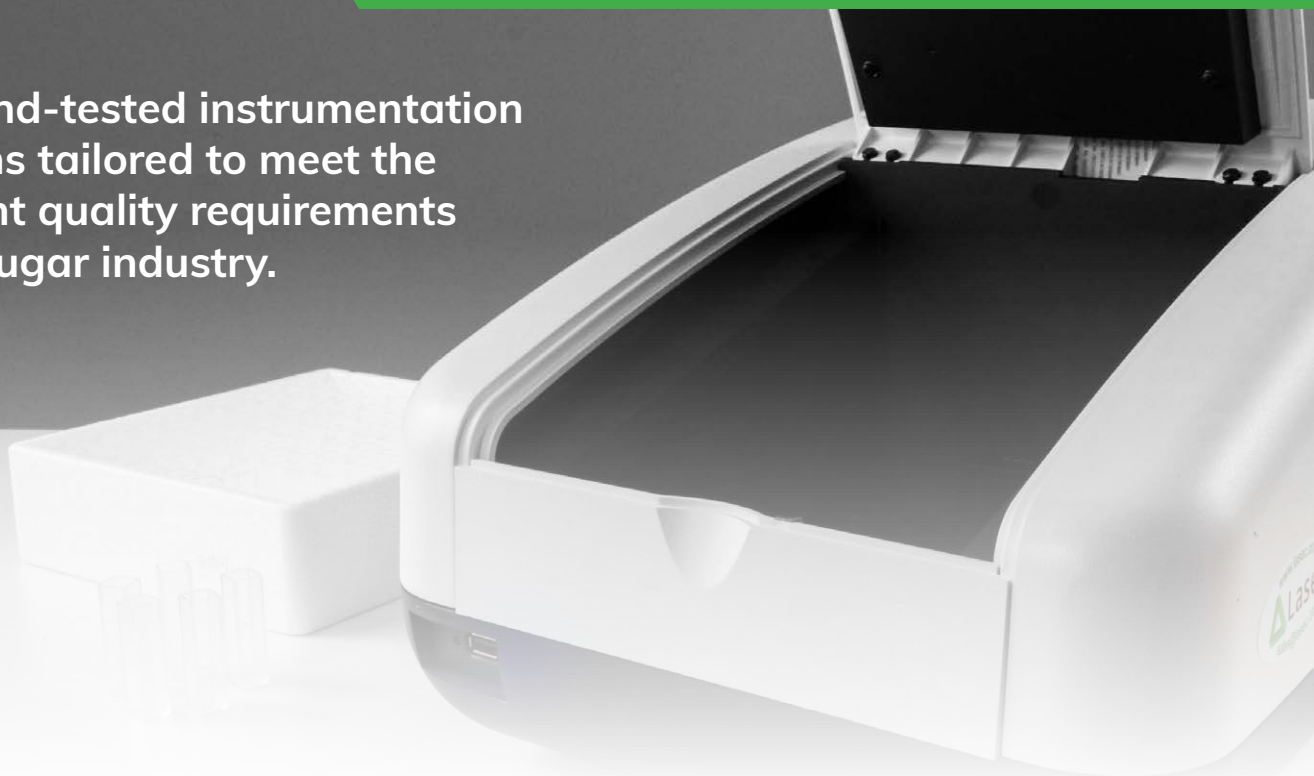
LASEC® CODE	DESCRIPTION	UOM
FLAS25AC2050	Syringe Filter Cellulose Acetate 0.2 µm 25 mm Sterile	PK 50
FLAS25AC4550	Syringe Filter Cellulose Acetate 0.45 µm 25 mm Sterile	PK 50
FLSC1110647ACN	Membrane Filter Cellulose Acetate 0.45 µm 47 mm Sterile	PK 100
FLASMCE800047N	Membrane Filter Mixed Cellulose Esters 8.0 µm 47 mm	PK 100
FLSC1140647ACN	Membrane Filter Cellulose Nitrate Gridded 0.45 µm 47 mm Sterile	PK 100
FLAS1GL003-00047	Glass Fibre MGA 1.6 µm 47 mm	PK 100
FLAS3308185	Filter Paper 3W Sugar 185 mm (POL Analysis)	PK 100



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E&OE

Tried-and-tested instrumentation solutions tailored to meet the stringent quality requirements of the sugar industry.



SACCHARIMETER



The Autopol 880 provides 0.01 °Z repeatability and accuracy, time-proven measurement technology and the critical features necessary for today's sugar analysis. The most important feature of the Autopol 880 is its ability to measure at two wavelengths: 589 nm or 880 nm (in the near-infrared - NIR). Select 589 nm for conventional analysis using chemicals or lead clarifiers, or select 880 nm, which permits measurements of filtered, non-lead clarified juices. The Autopol 880 also includes dilution and cell length correction features as well as automatic calibration using a quartz control plate.

Measurement Range:

±259 °Z, ±89.9 ° Arc

Accuracy:

0.01 °Z

Probe:

Built-in temperature probe (no need for an external waterbath)

Wavelengths:

Standard - 589 nm, 880 nm

Suitable for Sample Analysis in:

- Cane sugar milling and refining
- Beet sugar milling and refining
- Invert sugar
- Liquid sugar
- Confectionary sugar
- Brown sugar

LASEC® CODE	DESCRIPTION
IRRAA21936	Autopol 880 Dual Wavelength Saccharimeter
IRRAA33-8.5-200-15	Flow Through Sample Cell 200 mm
IRRAA33-5-100-2.0	Flow Through Sample Cell 100 mm
IRRAA700T-1-34	Quartz Control Plate Assembly

REFRACTOMETER

The J57 pour-through refractometer with Peltier temperature control has been specifically designed for measuring cane or beet juice in a sugar mill. This design has two important benefits: cleaning becomes part of the sample loading process and measurement time is reduced as one sample is poured in after another, making the design attractive for seasonal operators. The funnel design forces improved sample flushing by increasing the number of sample aliquots and reducing spillage.

Measurement Range:

Accuracy:

Temperature Control:

- 1.32 - 1.53 RI: 0 - 100 Brix
- 0.00002 RI / ± 0.01 Brix
- Temperature control: 10 °C to 65 °C
- Cooling fan included for high ambient temperature environments above 40 °C

Suitable for Sample Analysis in:

- Cane sugar milling and refining
- Beet sugar milling and refining
- Invert sugar
- Liquid sugar
- Confectionary sugar
- Brown sugar

Lasec® Code: IRRAA26171-HA-PTW-CF-VT



VACUUM PUMPS

- Single-stage diaphragm pump with up to 70 mbar ultimate vacuum
- Chemical resistance and superior vapour tolerance for filtration of samples containing solvents

Lasec® Code: ME 2C NT

SPECTROPHOTOMETER

Cell path lengths used for colour analysis can vary from 10 - 100 mm depending on the sample type. By incorporating the universal cuvette holder into the spectrophotometer, the analyst may use cells of different path lengths to take colour readings with the same instrument configuration.

Specifications:

- Single beam spectrophotometer range (± 1 nm)
- 5 nm bandwidth
- Ranges:
 - Absorbance: -0.3 to 2.5 A
 - Transmittance: 0 - 199.9 % T
 - Concentration: -300 - 9999 C
- 198 - 1100 nm wavelength

Lasec® Code: IJEN730501



CHILLERS

Option 1: RA 8 Cooling Thermostat

- 7.5 l bath volume
- Work area cover included

Option 2: RA 24 Cooling Thermostat

- Large 22 l bath volume
- Work area cover included
- Large opening (350 x 277 mm)

Specifications:

- -25 to 100 °C
- 225 W cooling capacity at 20 °C (425 W for Option 2)
- Simple 3-button operation
- Large LED display
- Integrated timer function
- Variable flow rates
- Acoustic and optical alarms
- Can be used as a stand-alone waterbath or for cooling external equipment



LASEC® CODE	DESCRIPTION
OPTION 1: ILAUL000638	Alpha RA 8 Cooling Thermostat, -25 to 100 °C, 7.5 l
OPTION 2: ILAUL000640	Alpha RA 24 Cooling Thermostat, -25 to 100 °C, 22 l



MICROSCOPES

- Fast, accurate and easy to use
- Records crystals and superimposes the actual measurements taken for future reference
- Microscope and camera system
- User-friendly software (computer not included)
- Zoom from 8x to 50x with positive click stops for repeatable settings at particular magnifications
- Requires once-off calibration at magnifications used for measuring purposes
- Energy efficient LED light-source remains cool when left on
- Trinocular head inclined at 45 ° for comfortable viewing
- 10x eyepieces

LASEC® CODE	DESCRIPTION
IMICBS-3040T-PACKAGE	Stereo Microscope Trinoc Magnification 8x to 50x Eyepiece 22 mm including Digital Camera Pack 5 mp

SOIL SENSOR KIT

The WET-2 sensor measures three vital soil properties: Water Content, Electrical Conductivity and Temperature.

Kit Comprises of:

- WET-2 sensor
- HH2 soil moisture meter and data-logger
- Calibrations for many soils and substrates

Ideal for:

- Precision fertigation
- Rapid monitoring of growing conditions
- Determining moisture and nutrient status in the root zone

Gp2 Advanced Logger & Controller:

- Powerful and rugged field data logger
- Simple connection to profile probes
- Free use of DeltaLINK-Cloud data sharing service
- Huge additional capacity for SDI-12 sensors
- 12 differential channels

The GP2 is an advanced SDI-12 enabled data logger that is easy to use, rugged and reliable. It is compatible with most sensor types and is ideal for demanding research and monitoring projects / irrigation control, and advanced control applications. Connect: ML3, SM150T, PR2, WE.



LASEC® CODE	DESCRIPTION
IDELWET150-KIT	WET150 Multiparameter Soil Sensor Kit for Water Content, Conductivity and Temperature
IDELGP2	Gp2 Data Logger



PLANT PHYSIOLOGY

Small advanced hand-held device for plant stress detection.

- Cost-effective
- Advanced OJIP analysis
- Large data storage
- Used to assess environmental stress damage and plant health
- Accurate Fv / Fm readings
- Colour graphic display

Lasec® Code: IADCOS-30P

SOIL MOISTURE SENSOR

The PR2 profile probe provides easy and accurate soil moisture profiles. The NEW SDI-12 enabled probes allow for the creation of low-cost, highly flexible network systems.

Features:

- SDI-12 interface - connect multiple probes to a single data logger using a single cable
- Soil moisture content - not just trends
- Low salinity and temperature sensitivity
- Portable meter option for multi-site measurements
- Connect to data logger for continuous soil monitoring
- Capable of measuring soil moisture content over a wide range of soil types

Lasec® Code: IDELPR2/6



WATER PURIFICATION SYSTEMS

Labwater deionisers are simple, cost-effective units for producing small volumes of 1 – 10 $\mu\text{S/cm}$ purified water at a time. The Labwater units incorporate an easily replaceable cartridge that contains resin that changes colour when it has absorbed ionic contaminants. This facilitates a low level of maintenance and once the colour has changed from blue to brown, the exhausted cartridge is simply replaced.

Supplied with:

- Wall brackets and connections
- Deionisation cartridge (plus one spare)
- Colour change resin
- Inlet on / off valve with 12 mm hose connector
- Outlet spout with flexible pipe

The units are wall-mounted and can be connected to an existing water supply (tap or stopcock) via a dedicated hose.

Lasec® Code: IPURL991021



pH AND CONDUCTIVITY METERS

The GLP PC8 multimeter performs both pH and conductivity measurements. Additional test parameters include TDS, ORP (mV) and salinity measurement modes.

Specifications:

- pH range: -2 to 16 pH
- Conductivity range: 0 to 200 mS
- Temperature range: -10 to 100 °C
- GLP

Lasec® Code: IBOR50004152

* Portable options are available

PHOTOMETERS

The multiparameter MD600 photometer features over 100 different test methods for water analysis. Its user-friendly and compact design ensures that it's ideal for both laboratory and field applications.

Specifications:

- Portable
- Pre-programmed with over 100 methods
- Supplied in robust carry case with accessories
- Reagents are not included (offered separately)

Lasec® Code: ILVB214020



FIRE SAFETY STORAGE CABINETS

Fire safety storage cabinets classified as Type 90 according to the EN14470-1 standard, offer maximum safety. It takes more than 90 minutes of exposure to fire before the temperature inside rises to dangerous levels, ensuring maximum protection for people and property.

Q-LINE SINGLE DOOR FIRE SAFETY STORAGE CABINET

Exterior Dimensions:

599 mm (W) x 615 mm (D) x 1953 mm (H)

Supplied with:

- 1 x bottom collecting sump and perforated insert
- 3 x shelves

Lasec® Code: IASE30072046-1

* Different colour doors available



UB-LINE UNDER BENCH DOUBLE DOOR FIRE SAFETY STORAGE CABINET

Exterior Dimensions:

110 mm (W) x 570 mm (D) x 600 mm (H)

Supplied with:

1 x bottom collecting sump and perforated insert

Lasec® Code: IASE30443-1



UB-LINE UNDER BENCH SINGLE DOOR FIRE SAFETY STORAGE CABINET

Exterior Dimensions:

590 mm (W) x 570 mm (D) x 600 mm (H)

Supplied with:

1 x bottom collecting sump and perforated insert

Lasec® Code: IASE30481-1



COMBI-CABINETS

The combi safety storage cabinets are unique in offering a combined cabinet for the possibility of storage of flammables as well as acids and alkalis without violating the rules of segregation. This is achieved via two compartments: one for flammable liquids meeting stipulations for 90-minute fire resistance in accordance with EN14470-1 and the other manufactured specifically for storage of acids and alkalis.

K-LINE DOUBLE DOOR UNDER BENCH COMBI-CABINET

Exterior Dimensions:

1400 mm (W) x 500 mm (D) x 600 mm (H)

Supplied with:

- Flammable liquids compartment:
 - 1 x bottom collecting sump and perforated insert
- Acid and alkali compartment:
 - 2 x pull-out shelves, includes PP trays

Lasec® Code: IASE30377-1



ACID AND ALKALI SAFETY STORAGE CABINETS

The cabinets for acids and alkalis offer optimal safety for the storage of aggressive hazardous materials. These special cabinets are constructed for safe storage of acids and alkalis, but are not suitable for storage of flammable liquids.



SL-LINE UNDER BENCH DOUBLE DOOR ACID AND ALKALI SAFETY STORAGE CABINET

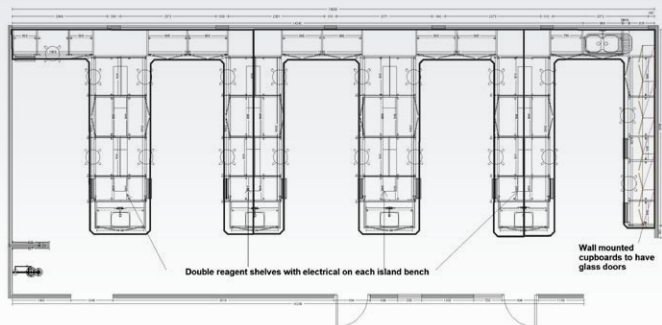
Exterior Dimensions:

1100 mm (W) x 570 mm (D) x 600 mm (H)

Supplied with:

4 x pull out drawers includes removable pp trays

Lasec® Code: IASE30619-1



LABORATORY FURNITURE

CONCEPTUAL DESIGN

Our Lasec® furniture design team will create a conceptual design for your laboratory area.



FURNITURE SUPPLY

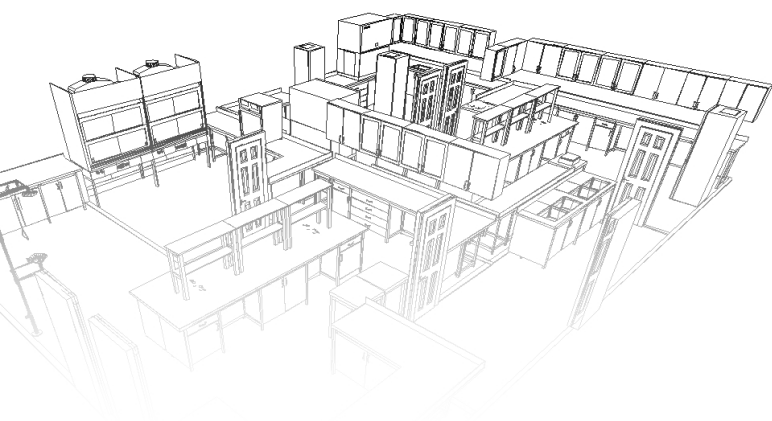
Lasec® supplies laboratory furniture and fittings that are designed and manufactured for the laboratory environment.



- ✓ A custom furniture layout for your workspace
- ✓ Workflow optimization
- ✓ Guidance on instrumentation placement
- ✓ 3D render of laboratory layout
- ✓ Various colours of worksurfaces, frames and cupboards available

- ✓ Chemically resistant worksurfaces
- ✓ Specialised laboratory taps, gas and waste fittings
- ✓ Additional safety features and accessories

- ✓ **Delivery and Installation:**
Our dedicated logistics team will arrange that your furniture is shipped and delivered to your premises, ready for installation and oversight by a Lasec® project manager accompanied by a team of furniture fitment specialists.



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E&OE



CAPE TOWN

52 Old Mill Road
Ndabeni
Cape Town
7405

+27 21 531 7504

JOHANNESBURG

48 Gazelle Crescent
Gazelle Place
Corporate Park South
Randjiespark
Midrand
1685

+27 11 052 2500

DURBAN

Unit 3, Windsor
Court, Ground Floor
AFS House, 4 Derby
Place, Derby Downs
Westville
3629

+27 31 702 6001

PORT ELIZABETH

Unit 5.1, Building 3
Ascot Office Park
Block 7
Conyngham Street
Greenacres
6001

+27 41 373 9173

BLOEMFONTEIN

53 President Steyn
Avenue
Westdene
Bloemfontein
9301

+27 51 447 9500

PLEASE DIRECT ALL ENQUIRIES FROM OUTSIDE SOUTH AFRICA TO:

 52 Old Mill Road, Ndabeni, 7405, Cape Town PO Box 2110, Cape Town, 8000

 www.lasec.com

 +27 21 531 7504

 sales@lasec.com

 international@lasec.com