



## WATER TESTING SOLUTIONS

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A RANGE OF **QUALITY PRODUCTS** AND  
**SERVICES** SUITED FOR YOUR REQUIREMENTS



## LASEC® WHO WE ARE

For over 70 years Lasec® has been supplying quality, dependable solutions and services to the laboratory and scientific community.

With more than 80 scientifically trained and qualified personnel we bring years of practical laboratory, engineering and teaching experience to your aid.

One of the first laboratory product suppliers to expand beyond South Africa's borders, we have been meeting customers' needs throughout Africa for over 20 years.

## OUR CUSTOMER COMMITMENT

### PRODUCT RANGE

Our extensive sourcing network and long-term partnerships with leading international manufacturers, coupled with our ability to provide customised solutions through our own local manufacturing facility makes Lasec® the one-stop shop to meet your requirements. Our buying power means you can get the highest quality product at the most competitive price.

With warehousing facilities in Cape Town, Johannesburg and Durban we hold stock of a broad range of products, including consumables and instruments. This extensive stock-holding reduces delivery times of key products across our markets.

### LOGISTICS

Supported by a state-of-the-art supply chain management system and partnering with reliable logistics service providers, we can ensure efficient in-bound and out-bound shipments across Africa.

### TRAINING

On-site installations are accompanied by customer training on the correct use and maintenance of equipment. Our scientists keep abreast of the latest technologies and trends, allowing us to offer informative and practical training courses, many of which are CPD-accredited.

### QUALITY ACCREDITATION

Our Lasec® quality promises are backed by international accreditation: ISO9001 for good business practice, ISO13485 for our diagnostic kit facility and ISO17025 for volume and mass metrology.





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## BLUE DROP GREEN DROP TEST KITS

In accordance with regulations set by the Department of Water & Sanitation, the Blue Drop certification program and Green Drop certification program encourages excellence in drinking water quality management in South Africa.

### BLUE DROP TEST KIT

This portable test kit for drinking water analysis is ideal for SANS 0241 compliance testing. The kit comprises of handheld instruments required to complete basic tests to determine the quality of drinking water in accordance with the Blue Drop certification program.

#### REAGENTS INCLUDED:

Chlorine (free and total), pH buffers, Conductivity solutions

#### TEST KIT INCLUDES:

##### CHLORINE METER

- Determination of Free and Total Chlorine
- Large LCD screen with backlight
- IP68 waterproof rating

##### TURBIDITY METER

- Compact, lightweight design with waterproof sample chamber
- Infrared technology facilitates fast, precise, on-site testing
- Data storage for up to 16 data sets

##### HANDHELD MULTIMETER

- Measures pH, Conductivity, TDS, Dissolved Oxygen
- Real time data logger with storage of up to 16 000 data sets
- Protective casing

### GREEN DROP TEST KIT

This portable test kit for waste water analysis consists of easy-to-use handheld instruments required for the analysis of waste water in accordance with the Green Drop certification program.

#### REAGENTS INCLUDED:

Alkalinity, Ammonia, Chlorine (free and total), Iron, Hardness, Nitrate, Nitrite, pH buffers, Conductivity solutions

#### TEST KIT INCLUDES:

##### HANDHELD MULTIMETER

- Determines pH/Conductivity/TDS
- Real time data logger with storage for up to 16 000 data sets
- Protective casing

##### MULTI-PARAMETER COLORIMETER

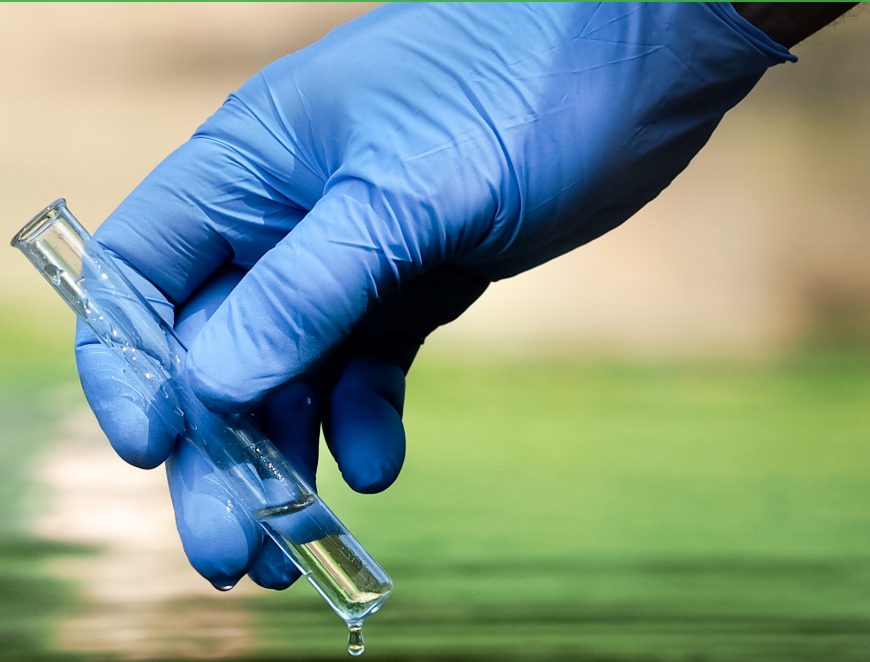
- Lightweight, handheld instrument
- For determination of turbidity, chlorine, and various other parameters (over 120 preprogrammed methods)
- Storage of up to 1000 data sets

##### DISSOLVED OXYGEN METER

- Large LCD display
- Waterproof sensor (IP67)
- Luminescence technology

\* E. coli and Coliform test kit available separately.





## ELECTROCHEMISTRY



### ADVANCED PORTABLE METERS

- Single parameter determination of pH or Conductivity and temperature
- GLP compliant
- Waterproof (IP 57 and IP 67)
- Supplied in convenient carry case with necessary solutions
- Large easy-to-read LCD display with backlight
- Datalogger function

### BASIC HANDHELD TESTERS

- Single parameter and multiparameter pH, Conductivity, ORP/redox, Salinity and TDS meters
- Waterproof (IP67)
- Data storage of up to 25 results each with a time and date stamp
- Robust and easy to use
- Available in kit with buffer solutions for calibration

### MULTIMETERS

- Multi-parameter determination of pH, Conductivity and temperature
- GLP compliant
- Waterproof (IP 57 and IP 67)
- Supplied in convenient carry case with necessary solutions
- Large easy-to-read LCD display with backlight
- Datalogger function

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

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## FLOCCULATION



### FLOC (JAR) TESTER

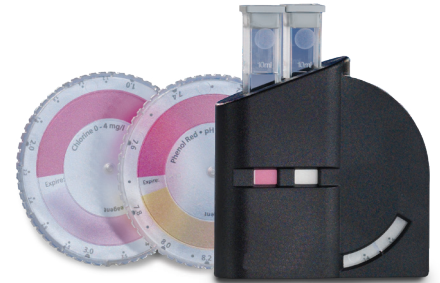
- Portable flocculator with 4 stirring positions
- Central lamp allows for easy observation of the flocculation process in the field
- Compact, portable and lightweight
- Stirring speed range of 20-120rpm
- Easy to use

## MACRO AND MICRO DETERMINANTS



### HANDHELD PHOTOMETER

- Multi-parameter photometer
- Large LCD display with backlight
- More than 120 pre-programmed methods and 35 user-specific methods
- Internal memory of up to 1000 data sets
- Supplied in a convenient carry case with accessories
- Optional data transmission module to facilitate data transmission to a PC



### VISUAL COLOUR TESTING

- Easy to use
- Durable plastic discs for a range of tests
- Test kits for a wide variety of analytes including, but not limited to, the following: Ammonia, Chlorine, Copper, pH, Phosphate and Total Alkalinity

\* Complete list of possible tests / compatible reagents available

## MICROBIOLOGY



### COLIFORM / E. COLI TEST KIT

- For the early detection of bacterial contamination
- Detects 1 cfu/100ml
- Easy to use
- Complete kit includes reagents and battery-operated UV light

## TURBIDITY MEASUREMENTS



### TURBIDITY METER

- Compact, lightweight design with waterproof sample chamber
- Infrared technology facilitates fast, precise on-site testing
- Data storage for up to 16 data sets





## BIOLOGICAL OXYGEN DEMAND



### BOD INCUBATORS

- Continuously adjustable temperature range of 2-40°C
- Ideal for temperature-controlled storage of samples
- Power sockets located inside the incubator for BOD system
- Solid door and glass door models available



### BOD SYSTEM

- 6-place system with individual control for each sample
- User-selectable measurement period between 1-28 days
- Automatic storage of BOD values
- Can be used inside BOD incubators

### RECOMMENDED CONSUMABLES:

- Volumetric measuring cylinders
- Media bottles
- Glass funnels
- Spoon type spatulas



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## ELECTROCHEMISTRY



### CONDUCTIVITY METERS

- Measurement of Conductivity/ TDS/Salinity/Resistivity and temperature
- GLP model available
- Storage for up to 1000 data sets with data transfer to PC
- PC software included
- IP54 waterproof rating



### DISSOLVED OXYGEN METERS

- Luminescence technology facilitates high accuracy of readings and low maintenance of electrode
- Large LCD display
- Waterproof sensor (IP67)
- Supplied in a convenient carry case



### PH METERS

- Determination of pH, ORP, Ion and temperature
- Up to 5-point calibration
- GLP model available
- Memory capacity for up to 1000 data sets
- IP54 waterproof rating

## FILTRATION



### GLASS FIBRE FILTERS

- With or without binder
- Various pore sizes available including 1.6µm
- Various diameters available

### FILTER PAPER

- Quantitative or qualitative
- Various grades and pore sizes available
- Various diameters available
- Hardened versions available



### MEMBRANE FILTERS

- Cellulose nitrate and cellulose acetate
- PTFE available for corrosive applications
- Nylon available for HPLC applications
- Sterile or non-sterile



### SYRINGE FILTERS

- Cellulose Acetate, Nylon, PTFE or PVDF
- Sterile or non-sterile
- Pore sizes of 0.45µm or 0.2µm available
- ID 25mm OD 33mm
- Individually wrapped or bulk packaged



## MACRO AND MICRO DETERMINANTS : ALL IMPORTANT WATER ANALYSIS PARAMETERS FROM A(LUMINIUM) TO Z(INC) ARE AVAILABLE

### COLORIMETER

- Compact, modular design
- Test discs and reagents available for various parameters
- Glass colour standards in test discs are compliant with international standards



### MULTI-PARAMETER PHOTOMETERS

- Automatic selection of wavelengths
- Uses dual beam technology and interference filters for high accuracy of readings
- Free software updates available
- Memory can store up to 1000 data sets
- Supplied in case with all necessary accessories to perform tests

\* Contact your local Lasec office for a complete list of tests / compatible reagents



### SPECTROPHOTOMETERS

- Accommodates round and rectangular sample cells without adapters
- Pre-programmed methods for water testing
- Up to 35 user-defined methods
- Free software upgrades available via website
- Data storage of up to 1000 data sets
- Recommended consumable: Glass or plastic cuvettes

### THERMOREACTORS

- Required for COD, TOC, Phosphate, Chromium and Nitrogen analyses
- 24 x 16mm diameter tube capacity
- Timer function (30, 60, 120 minutes or continuous)
- Overheating protection
- Three temperature settings (100, 120 and 150°C)

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## MICROBIAL TESTING AND MONITORING: TOTAL COLIFORMS, FAECAL COLIFORMS AND E. COLI



### COLONY COUNTER

- Pressure sensitive counting with audible count confirmation
- Average count facility
- Bright white energy saving LED lighting
- Connectivity to printer or computer



### DEHYDRATED CULTURE MEDIA

- Convenient – use straight from the shelf, little need for refrigeration or specialist storage
- Waste-free – make up only what you need, when you need it
- Long shelf-life
- Cost-effective
- Specialise in CCA – Chromogenic Coliform Agar

\* More than 40 dehydrated culture media options available for common microbiological water tests



### FILTRATION MANIFOLD

- 6-place filtration manifold
- Available with required tubing, stoppers and filter flasks



### GLASS FILTRATION SYSTEMS

- For bacteriological analysis of water and analysis of suspended solids in water
- For use with 47mm filter discs
- Comes complete with a 1lt vacuum filter flask
- Also available for 90mm filter discs



### IMMERSION OIL

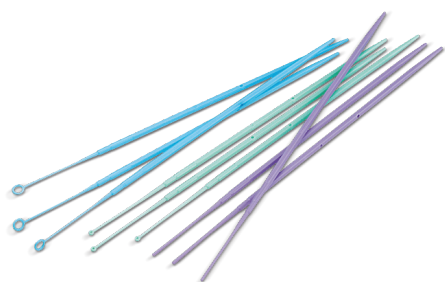
- Improve fine resolution and brightness of image through use of high quality, certified immersion oils
- For use with microscopes



### INCUBATORS

- Natural convection or forced air circulation available
- SingleDISPLAY and TwinDISPLAY models available
- Temperature range up to 80°C
- Various model sizes available (32L to 749L)





## INOCULATING LOOPS, NEEDLES AND SPREADERS

- Sterile
- 1µl or 10µl
- Plastic
- Flexible



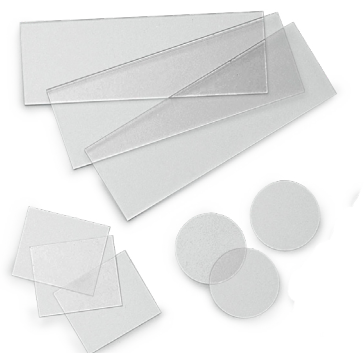
## LENS CLEANING TISSUE

- Made from 100% manila fibres
- Lint-free



## MEMBRANE FILTERS

- Sterile, gridded and individually wrapped
- Pore size: 0.45µm
- Diameter: 47mm
- Filter identification and batch number printed on each individual pack
- High, non-specific adsorption



## MICROSCOPE SLIDES AND COVERSGLIPS

- Slides are single or twin frosted
- Ground, cut or bevelled edges available
- Coverslips are chemically resistant, Borosilicate 3:3 glass



## PETRI DISHES

- Polystyrene
- 90 x 15mm (Also available in 65 x 15mm)
- EO sterilised
- Sleeves of 10, box of 500



## VACUUM PUMPS

- Use with filtration system
- Convenient, quick and simple to use
- Whisper quiet and very low vibration
- Requires minimal bench space
- High chemical resistance



## MICROSCOPES

- Compound or Stereo
- Available with Binocular or Trinocular heads
- Infinite Plan Objectives and LED Illumination
- Choice of cameras for image analysis
- Fluorescence, Darkfield and Phase Contrast options available

## TOTAL DISSOLVED SOLIDS AND SUSPENDED SOLIDS



### ANALYTICAL BALANCES

- Capacity/Readability: 220g/0.1mg
- Accuracy and measurement reliability are ensured by an automatic internal adjustment/calibration system
- Large weighing chamber with sliding top and side glass doors
- Equipped with 2 x RS232, USB-A, USB-B, wireless connection communication interfaces
- 5" capacitive colour touch screen



### DESICCATORS

- Outer diameter: 392mm
- Plastic knob

\* Silica gel crystals available



### GLASS FIBRE FILTERS

- For suspended solids test and clarification
- With or without binder
- Various diameters and pore sizes available
- Corresponds to international standards for water pollution monitoring



### GLASS FILTRATION SYSTEMS

- For bacteriological analysis of water and analysis of suspended solids in water
- For use with 47mm filter discs
- Comes complete with a 1lt vacuum filter flask
- Also available for 90mm filter discs



### Ovens

- Natural convection or forced air circulation available
- SingleDISPLAY and TwinDISPLAY models available
- Temperature range up to 300°C
- Various model sizes available (32L to 749L)



### VACUUM PUMPS

- Use with filtration system
- Convenient, quick and simple to use
- Whisper quiet and very low vibration
- Requires minimal bench space
- High chemical resistance



## TURBIDITY MEASUREMENTS



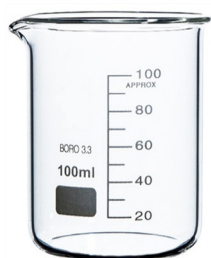
### FLOC (JAR) TESTERS:

- For laboratory use
- 4 or 6 stirring positions with adjustable height for stirrer blades
- Illuminated back panel
- Digital display of stirring RPM
- Accommodates 1L – 1.5L beakers



### TURBIDITY METERS

- Quick and easy turbidity measurement in the laboratory
- Infrared technology for high accuracy
- Conforms to ISO 7027 specifications
- Auto ranging function from 0 - 1100 NTU
- Data logging feature stores up to 1 000 data sets
- Waterproof sample chamber



### RECOMMENDED CONSUMABLES:

- Beakers
- Syringes
- Pasteur pipettes



## LIQUID REAGENTS

Liquid reagents consist of several carefully measured components that need to be added to a sample to produce the desired result.

Top Liquid reagents include:

- DPD
- Phenol red



## TABLET REAGENTS

Test tablets provide the most consistent and reliable results compared to other methods of testing. Each tablet is individually sealed in aluminium pockets, ensuring that each tablet is stored in perfect condition until required. Storage of tablets in this protective foil prolongs the lifespan of tablet reagents to a minimum of 5 years.

Top Tablet reagents include:

- Alkalinity
- Ammonia
- DPD no.1/2/3/4
- Phosphate
- Nitrate
- Sulphate

## STANDARD SOLUTIONS

Lasec® provides a wide range of standard solutions for your calibration needs.

Top Standard solutions include:

- 3M KCl
- pH Buffer 4.01
- pH Buffer 7.00
- pH Buffer 9.21
- pH Buffer 10.01
- Conductivity standard 12.88 mS/cm
- Conductivity standard 84 µS/cm
- Conductivity standard 1413 µS/cm



## TUBE TESTS

Perform highly sensitive and precise water testing with the Lovibond® tube test. Each optical glass tube contains a specific volume of reagent, thereby eliminating the need for additional chemicals and promoting test safety.

Top tube test reagents include:

- Ammonia
- Ortho-phosphate
- COD



## VARIO POWDER PACKS

Fast-reacting and easy to use packs have made them very popular in the industry. Powder packs are produced to the same high quality as that of the tablet reagents. Their chemical composition makes them compatible with other water testing brands. Top VARIO reagents include:

- Ammonia
- COD
- Nitrate
- DPD
- Iron
- Phosphate





## LASEC® TRAINING

With more than 80 scientifically trained and qualified personnel, we bring years of practical laboratory experience and application expertise to your aid.

### BLUE DROP / GREEN DROP WORKSHOPS

Application-based workshops to assist end-users with correct use of equipment and techniques to perform tests associated with Blue Drop and Green Drop requirements.

### SAMPLE COLLECTION TIPS AND TOOLS TO MAINTAIN SAMPLE INTEGRITY

Recommendation on correct equipment and consumables to ensure uncompromised samples.

### GOOD LAB PRACTICE GUIDELINES

Accredited training programmes covering topics relevant to Good Lab Practice.

Topics include, but are not limited to:

- Safe handling and storage of flammable liquids
- Manual liquid handling techniques
- Biosafety protection

### STANDARD OPERATING PROCEDURE (SOP) DEVELOPMENT

Assistance with the development of straight-forward instructions to ensure the testing process is followed consistently to achieve reliable results.

### ON-SITE INSTALLATION AND TRAINING

Product managers, application specialists or service engineers undertake installation and train end-users on the correct use of and maintenance of laboratory equipment supplied.





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