



BIOLABS AT THE LUNDQUIST

# EQUIPMENT INFO

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PREPARED BY JESSICA GRONDIN (LABORATORY MANAGER)

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# PCR



EPPENDORF  
*MASTERCYCLER  
X50*



TECHNE  
*PRIME  
GRADIENT*



APPLIED BIOSYSTEMS  
*PROFLEX*

**MAX TEMP**  
99 °C

**HEATING RATE**  
10 °C/s

**COOLING RATE**  
5 °C/s

**WELL CAPACITY**  
0.2 mL

**MAX PLATE SIZES**  
96 Well

**INTERFACES**  
Ethernet  
USB

**MAX TEMP**  
100 °C

**HEATING RATE**  
3.4 °C/s

**COOLING RATE**  
5 °C/s

**WELL CAPACITY**  
0.2 mL

**MAX PLATE SIZES**  
96 Well or 384 Well

**INTERFACES**  
USB

**MAX TEMP**  
100 °C

**HEATING RATE**  
4.4 °C/s

**COOLING RATE**  
5 °C/s

**WELL CAPACITY**  
0.2 mL

**MAX PLATE SIZES**  
96 Well or 3 x 32

**INTERFACES**  
USB  
On-Board





# EPPENDORF *MASTERCYCLER®* *X50*

The new Mastercycler X50 is the elegant synthesis of speed, flexibility and PCR optimization for research PCR applications and standardization for routine PCR applications such as food testing etc. A new highly intuitive touch screen concept puts all of those benefits always at your fingertips.

## *Unique Features*

- CAN CONTROL UP TO 9 OTHER UNITS
- INNOVATIVE 2D-GRADIENT
- AUTOMATIC HEIGHT ADJUSTMENT OF THE LID

## *Applications*

- FAST PCR
- PCR OPTIMIZATION
- STANDARD PCR
- INCUBATION
- CYCLE SEQUENCING

## *Specifications*

- TOUCHSCREEN
- BLOCK TEMP RANGE: 4 - 99 °C
- 10 °C/S HEATING RATE
- LID HEATING RANGE: 37 - 110 °C
- 96 × 0.2 ML PCR VESSELS

# Thermal Cycler



## TECHNE *Prime Gradient Thermal Cycler*

These high-performance thermal cyclers provide robust and reliable operation that is user friendly and easy on the pocketbook. Intuitive programming feature allows you to easily set up to 1000 programs (unlimited with USB) with password protection to minimize inadvertent changes in settings. Use the color touch screen to create even the most complex programs.

### *Unique Features*

- MEMORY : 1000, OR UNLIMITED VIA USB
- ADJUSTABLE TEMPERATURE TO PREVENT CONDENSATION

### *Applications*

- FAST PCR
- PCR OPTIMIZATION
- STANDARD PCR
- INCUBATION
- CYCLE SEQUENCING

### *Specifications*

- MAX TEMPERATURE (° F) 212
- MIN TEMPERATURE (° F) 39.2
- TEMPERATURE ACCURACY  $\pm 0.2^{\circ}\text{C}$  AT  $50^{\circ}\text{C}$
- RAMP RATE UP TO  $3.4^{\circ}\text{C}/\text{SEC}$
- MAX HEATING RATE UP TO  $3.4^{\circ}\text{C}/\text{SEC}$
- HEATED LID TEMPERATURE 100 TO  $115^{\circ}\text{C}$

# Thermal Cycler



# APPLIED BIOSYSTEMS *ProFlex 96*

The Applied Biosystems ProFlex PCR System combines the reliability and performance you've come to expect from Applied Biosystems thermal cyclers with the flexible configuration and control features that fit how you work today. Interchangeable block formats allow you to maximize your throughput or run independent experiments concurrently.

## *Unique Features*

- 96-WELL BLOCK
- VERIFLEX™ BLOCKS
- CLOUD ENABLED
- INTERCHANGEABLE BLOCKS
- MOBILE APP CONNECTIVITY

## *Applications*

- PCR
- REVERSE TRANSCRIPTASE

## *Specifications*

- BLOCK FORMAT: INTERCHANGEABLE
- CAPACITY: 96 WELL X 0.2 ML TUBES
- DISPLAY INTERFACE: TOUCHSCREEN
- FORMAT: 0.2 ML TUBES, 12-STRIP WELLS
- INSTRUMENT MEMORY: USB AND ON-BOARD
- PEAK BLOCK RAMP RATE: 6.0°C/SEC
- POWER REQUIREMENTS: 100-240V, 50-60 HZ

PCR

# APPLIED BIOSYSTEMS *ProFlex 3 x 32*

The Applied Biosystems ProFlex PCR System combines the reliability and performance you've come to expect from Applied Biosystems thermal cyclers with the flexible configuration and control features that fit how you work today. Interchangeable block formats allow you to maximize your throughput or run independent experiments concurrently.

## *Unique Features*

- 3 X 32-WELL BLOCK FOR RUNNING UP TO THREE EXPERIMENT
- VERIFLEX™ BLOCKS
- CLOUD ENABLED
- INTERCHANGEABLE BLOCKS
- MOBILE APP CONNECTIVITY

## *Applications*

- PCR
- REVERSE TRANSCRIPTASE

## *Specifications*

- BLOCK FORMAT: INTERCHANGEABLE
- CAPACITY: 3 X 32-WELL X 0.2 ML TUBES
- DISPLAY INTERFACE: TOUCHSCREEN
- FORMAT: 0.2 ML TUBES, 12-STRIP WELLS
- INSTRUMENT MEMORY: USB AND ON-BOARD
- PEAK BLOCK RAMP RATE: 6.0°C/SEC
- POWER REQUIREMENTS: 100-240V, 50-60 HZ



PCR

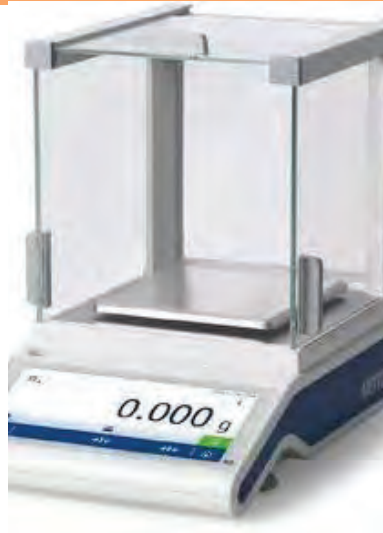
# BALANCES



OHAUS  
*HARVARD  
TRIP  
BALANCE*



VWR  
*P-SERIES  
PRECISION*



METTLER  
TOLEDO  
*MS-TS  
ANALYTICAL*



METTLER  
TOLEDO  
*PRECISION  
MS-TS NEW  
CLASSIC SG*

**CAPACITY**  
2000 g

**READABILITY**  
0.1 g

**PAN SIZE**  
155 mm

**CAPACITY**  
120 g

**READABILITY**  
1 mg

**PAN SIZE**  
-

**CAPACITY**  
320 g

**READABILITY**  
0.1 mg

**PAN SIZE**  
204 mm

**CAPACITY**  
1020 g

**READABILITY**  
1 mg

**PAN SIZE**  
127 mm



A close-up photograph of a mechanical balance beam, showing a central pivot point with a circular weight and a long, thin beam extending from it. The background is a textured, light-colored surface.

## OHAUS *Harvard Trip* *Balance*

Ideal for comparative weighing. OHAUS Harvard Trip Balances with choice of single or double beam models provide many years of maintenance-free, comparative weighing using a known standard.

### *Unique Features*

- WITH 2000G CAPACITIES, 0.1G READABILITIES
- STAINLESS STEEL
- EQUIPPED FOR SPECIFIC GRAVITY WEIGHING

### *Applications*

- COMPARATIVE WEIGHING

### *Specifications*

- CAPACITY: 4.4 LB., 2 KG
- DEPTH (ENGLISH) PAN: 5.9 IN.
- DEPTH (METRIC) PAN: 15CM
- DIAMETER (METRIC) OUTER PAN: 15.2CM
- HEIGHT (METRIC): 24.1CM

# Mechanical Balance



## VWR *P-Series Precision Balance*

Portable balances offer simple operation and multiple weigh modes. All units feature a stainless steel weigh pan. They are rugged and built to last.

### *Unique Features*

- PORTABLE DESIGN
- STAINLESS STEEL WEIGH PAN
- RUGGED CONSTRUCTION

### *Applications*

- COMPARATIVE WEIGHING

### *Specifications*

- OPERATING TEMPERATURE RANGE 0 - 40°C
- CAPACITY: 120 G
- READABILITY: 0.001 G
- REPEATABILITY: 0.001 G

Precision  
Balance

# METTLER TOLEDO

## *MS-TS Analytical Balance*

Ideal for comparative weighing. OHAUS Harvard Trip Balances with choice of single or double beam models provide many years of maintenance-free, comparative weighing using a known standard.

### *Unique Features*

- GUIDED BALANCE LEVELING
- GET CONNECTED FOR EASY DATA MANAGEMENT
- HIGH-PERFORMANCE WEIGHING CELL

### *Applications*

- WEIGHING
- BACK-WEIGHING
- DIFFERENTIAL WEIGHING
- FORMULATION; DENSITY
- COUNTING

### *Specifications*

- MAXIMUM CAPACITY 120 G
- READABILITY 0.1 MG
- REPEATABILITY (TEST WEIGHT) 0.1 MG (100 G)
- MINIMUM WEIGHT (USP, 0.1%, TYPICAL) 0.16 G
- WEIGHING PAN DIAMETER 90 MM
- DISPLAY 7" COLOR TOUCHSCREEN
- SETTLING TIME 2 S
- REPEATABILITY (TYPICAL) 0.08 MG
- INTERFACES ; USB HOST; USB DEVICE; RS232;



Analytical  
Balance



# Precision Balance

## METTLER TOLEDO *Precision MS-TS* *New Classic SG*

Advanced Level Precision Balance: 1020 g capacity, 1 mg readability, 7" touchscreen, full metal body, high-performance weighing cell, FACT, 11 easy-to-use applications, advanced connectivity and data management, user management, easy to clean

### *Unique Features*

- EASY TO USE
- PERFORMANCE YOU CAN TRUST
- RELIABILITY

### *Applications*

- WEIGHING
- BACK-WEIGHING
- DIFFERENTIAL WEIGHING
- CHECK WEIGHING
- TOTALING
- FORMULATION
- DENSITY
- DYNAMIC WEIGHING
- PERCENT WEIGHING
- COUNTING
- FACTOR WEIGHING

### *Specifications*

- MAXIMUM CAPACITY 1,020 G
- READABILITY 1 MG
- REPEATABILITY (TYPICAL) 0.7 MG
- MINIMUM WEIGHT (U=1%, K=2), TYPICAL 0.14 G
- SETTLING TIME 2 S
- REPEATABILITY 0.001 G
- WEIGHING PAN DIMENSIONS (WIDTH) 127.0 MM
- WEIGHING PAN DIMENSIONS (DEPTH) 127.0 MM
- MINIMUM WEIGHT (USP, 0.1%, TYPICAL) 1.4 G
- LINEARITY  $\pm 0.002$  G

# MIXERS



EPPENDORF

*THERMO  
MIXER C*

THERMO SCIENTIFIC

*LP VORTEX  
MIXER*

THERMO SCIENTIFIC

*THERMAL  
MIXER 24 X  
2ML*

## MAX SPEED

3,000 RPM

## MAX SPEED

3,000 RPM

## MAX SPEED

1,400 RPM

## TEMPERATURE

15 to 100

## TEMPERATURE

-

## TEMPERATURE

4 to 100

## TIMER RANGE

15 sec to 99:99 hours OR  
Continuous

## TIMER RANGE

Continuous

## TIMER RANGE

1 min to 96 hours





## EPPENDORF *ThermoMixer C*

Improve your assay results by dry incubation and mixing of your samples simultaneously: The Eppendorf ThermoMixer C is for heating, cooling, and mixing almost any of your lab vessels. Reliable prevention of condensate formation in small vessels can be achieved with the heated lid Eppendorf ThermoTop

### *Unique Features*

- MIXING, HEATING, AND COOLING
- ANTI-SPILL TECHNOLOGY
- MIXES LIQUIDS IN A CIRCULAR MOVEMENT
- PREVENTS CONDENSATION WITHIN THE TUBE LID

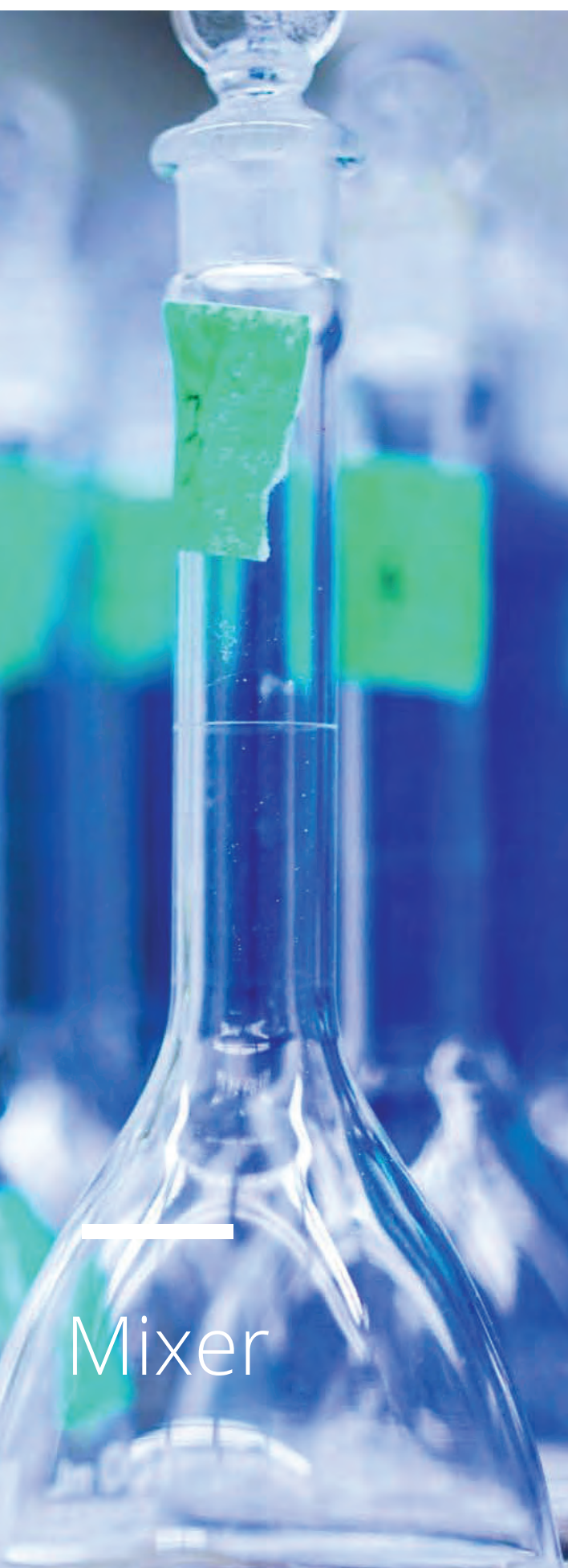
### *Applications*

- PLASMID/RNA/DNA PURIFICATION
- CDNA SYNTHESIS
- EXTRACTION OF DNA FRAGMENTS FROM GELS
- ENZYMATIC REACTIONS
- TRANSFORMATION OF BACTERIA AND PLASMIDS
- DENATURATION OF DNA, RNA, AND PROTEINS
- LABELING OF DNA, RNA, AND PROTEINS
- BACTERIAL GROWTH
- LYSIS REACTIONS AT 100 °C
- MIXING OF PCR SETUPS

### *Specifications*

- MAX SPEED: 3,000 RPM
- TEMP RANGE: 15 – 100 °C
- TIMER RANGE: 15 SEC TO 99:30 H, CONTINUOUS
- HEATING RATE: 7 °C/MIN

Mixer



# THERMO FISHER™ *LP Vortex Mixer*

Choose to continuously mix or pulse samples with the Thermo Scientific™ LP Vortex Mixer.

## *Unique Features*

- SEVERAL ATTACHMENT AVAILABLE
- CAN BE USED FOR PLATES AND GELS

## *Applications*

- MIXING
- PULSING

## *Specifications*

- SPEED CONTROL: 0 TO 3000RPM
- OPERATING MODE CONTINUOUS / TOUCH
- MAX LOAD 0.5 KG / 1.1LBS





# THERMO FISHER™ *ThermoMixer 24 x 2 mL*

Select a complementary block package for this versatile mixer featuring variable speed and temperature controls designed for a variety of applications

## *Unique Features*

- HEATING AND COOLING CAPABILITY
- COMPACT SIZE WITH QUIET OPERATION

## *Applications*

- GENETIC ANALYSIS
- DNA AND RNA EXTRACTION
- SAMPLE PREPARATION
- BIOCHEMICAL STUDIES
- EXTRACTION OF METABOLITES
- INCUBATION
- AGITATION
- DIGESTION
- SAMPLES/STANDARDS FOR PEPTIDE MAPPING

## *Specifications*

- TEMPERATURE RANGE (METRIC) 4°C TO 100°C
- TIME RANGE 1 MIN TO 96 HRS (1 MIN INCREMENT)
- ELECTRICAL REQUIREMENTS 120-240V

Mixer

# HOMOGENIZERS



## F I S H E R B R A N D *B E A D M I L L 2 4*

### **RUN TIME**

1 to 99 sec

### **PERFORMANCE RANGE**

0.8m/s to 6m/s in increments of  
1.5m/s

### **NUMBER OF CYCLES**

1 to 9

### **TUBE SIZE**

2mL or 0.5 mL



## FISHERBRAND *Bead Mill 24*

Used for variety of applications that require grinding, lysing, and homogenization of biological samples prior to molecular extraction. Used with Fisherbrand™ Bead Kits.

### *Unique Features*

- CONVENIENT FRONT-LOADING TUBE HOLDER
- PROCESSING RANGE IDEAL FOR SOFT TISSUE SAMPLES
- NO COOL-DOWN REQUIRED BETWEEN RUNS
- NO SAMPLE DEGRADATION DUE TO QUICK PROCESSING
- SMALLER FOOTPRINT TO MAXIMIZE BENCH SPACE

### *Applications*

- DNA/RNA EXTRACTION
- TISSUE HOMOGENIZATION
- PROTEIN PURIFICATION

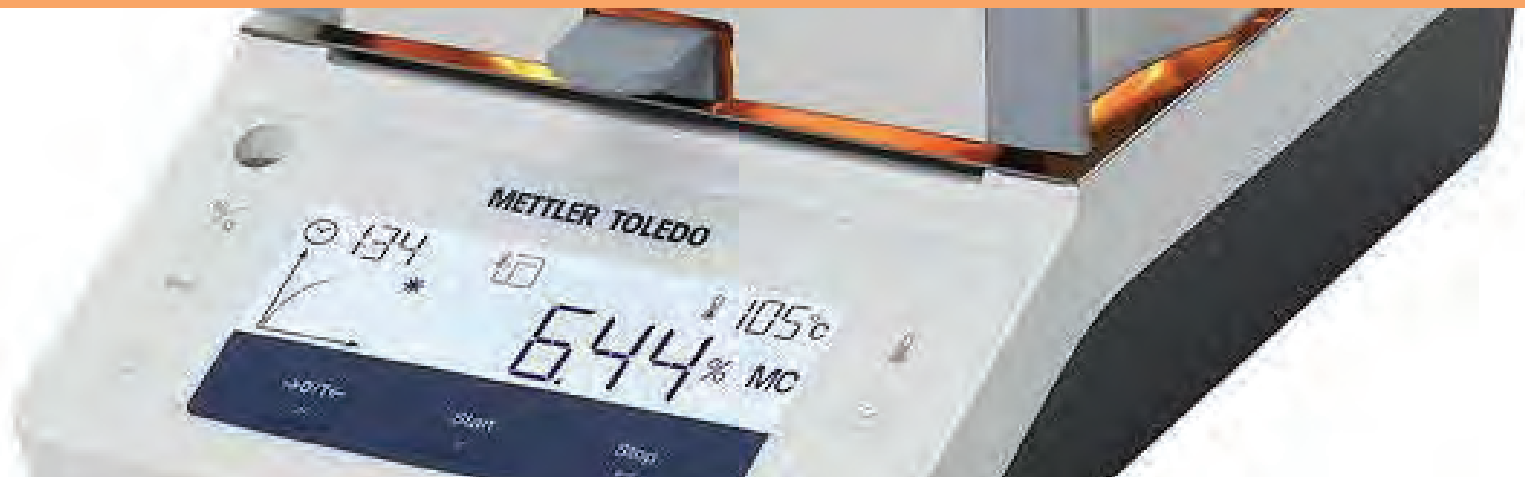
### *Specifications*

- RUN TIME: 1 TO 99 SEC.
- PERFORMANCE RANGE: 0.8M/S TO 6M/S
- NUMBER OF CYCLES: 1-9

Homogenizer



# MOISTURE DETECTOR



## M E T T L E R   T O L E D O

# *HE 73*

### **CAPACITY**

71 grams

### **TIMER**

120 minutes

### **HEATER TYPE**

Halogen

### **WEIGHING UNITS**

% moisture, % dry, % ATRO  
moisture dry, g of residue



# METTLER TOLEDO™ *HE 73*

The Mettler Toledo HE73 Halogen Moisture Analyzer is a robust, reliable and cost-effective solution for determining moisture content of your products.

## *Unique Features*

- BACKLIT LCD DISPLAY
- FULLY AUTOMATIC OR TIMED SWITCH-OFF
- RESULT DISPLAY IN %MC, %DC, %ATRO MC, % ATRO DC
- READABILITY: 1MG, 0.01% MC

## *Applications*

- PERCENT MOISTURE DETERMINATION
- PERCENT MOISTURE REGAIN DETERMINATION
- PERCENT SOLID DETERMINATION
- WEIGHING

## *Specifications*

- TEMPERATURE RANGE (METRIC): 50 TO 200 °C
- REPEATABILITY: 0.15% (2G SAMPLE),
- 0.05% (10G SAMPLE)

Moisture  
Detector

# PLATE WASHER



## BIOTEK *405 LS*

### WASH CYCLES

1 to 250

### OPERATING TEMPERATURE

15° to 30°C

### SOAK TIME

Up to 60 minutes

### VOLTAGE

100 to 240V



## BIOTEK 405 LS

The 405™ LS Microplate Washer is the fifth generation BioTek washer, known for superior performance and reliability for washing protocols ranging from gentle cell washing to vigorous ELISAs. The 405 LS has a simple user interface for creation and execution of wash, dispense, aspirate and maintenance protocols within the extensive onboard software.

### *Unique Features*

- MAGNETIC AND POLYSTYRENE BEAD ASSAYS
- ANGLED DISPENSE TUBES
- ADJUSTABLE FLOW RATES
- EXTENSIVE ONBOARD SOFTWARE

### *Applications*

- ELISA
- BEAD WASHING
- CELL WASHING /MEDIA EXCHANGE

### *Specifications*

- MICROPLATE TYPES: 96- AND 384-WELL
- SEPARATION: BIOMAGNETIC SEPARATION
- SHAKING: PROGRAMMABLE UP TO 60 MINUTES
- ULTRASONIC ADVANTAGE™
- VERIFY™ CLOG DETECTION
- VOLUME RANGE: 25 TO 3,000 ML/WELL
- WASH CYCLES: 1 - 250

# Plate Washer

# PLATE READERS



## PROMEGA *GLOMAX DISCOVER*

### **SAMPLE FORMAT**

6 - 384-well plates

### **READ SPEED**

Less than 1 min

### **WAVELENGTH**

350-700 nm

### **TEMPERATURE RANGE**

Ambient to 45°C

## INVITROGEN *VARIOSKAN*

### **SAMPLE FORMAT**

6 - 1536 well plates

### **READ SPEED**

less than 1 min

### **WAVELENGTH**

360 - 670 nm

### **TEMPERATURE RANGE**

Ambient to 45°C





## PROMEGA *GloMax® Discover System*

GloMax® Discover is a ready-to-use multimode plate reader developed with Promega reagent chemistries to provide a simple means of detecting luminescence, fluorescence and absorbance. This advanced plate reader provides flexible use of filters and includes high-performance luminescence, fluorescence, UV-Visible absorbance, BRET and FRET, two-color filtered luminescence and kinetic measurement capabilities.

### *Unique Features*

- FILTER PADDLES AND AUTOMATIC FILTER SWITCHING
- EASY TWO-COLOR MULTIPLEXING ASSAYS
- QUICK READ-SPEEDS FOR HIGH EFFICIENCIES
- COMPATIBLE FOR 3RD PARTY AUTOMATION CONTROL
- PLATE MASK
- LOW CROSS-TALK BETWEEN WELLS

### *Applications*

- LUMINESCENCE
- FLUORESCENCE
- UV-VISIBLE ABSORBANCE
- BRET AND FRET DETECTION

### *Specifications*

- SAMPLE FORMAT: 6, 12, 24, 48, 96 AND 384-WELL
- READ SPEED: 96-WELL PLATE: LESS THAN 1 MINUTE
- WAVELENGTH RANGE: 350-700NM
- DETECTION LIMIT:  $3 \times 10^{-21}$  MOLES OF LUCIFERASE
- DISPENSE VOLUME RANGE: 5-200 ML
- TEMPERATURE RANGE: AMBIENT TO 45°C
- SHAKING PATTERN: LINEAR OR ORBITAL PATTERNS
- SHAKING INTENSITY: 100-500 CYCLES/MINUTE

Luminometer

# THERMO SCIENTIFIC *Varioskan LUX*

Designed for bioscience researchers with a wide variety of needs, the Thermo Scientific™ Varioskan™ LUX multimode microplate reader comes equipped with a flexible range of measurement technologies including Absorbance, Fluorescence Intensity, Luminescence, AlphaScreen, and Time-Resolved Fluorescence.

## *Unique Features*

- UP TO FIVE MEASUREMENT TECHNOLOGIES
- FILTER AND MONOCHROMATOR OPTICS
- SPECTRAL SCANNING FOR ASSAY OPTIMIZATION
- FIVE MEASUREMENT MODES
- INTEGRATED GAS CONTROL
- AUTOMATIC DYNAMIC RANGE SELECTION

## *Applications*

- LUMINESCENCE
- FLUORESCENCE
- UV-VISIBLE ABSORBANCE
- BRET AND FRET DETECTION

## *Specifications*

- PLATE TYPE 6 - 1536 WELL PLATES
- LIGHT SOURCE XENON FLASH LAMP AND LED
- WAVELENGTH RANGE ABSORBANCE: 200 - 1000NM
- FLUORESCENCE INTENSITY: EXCITATION: 200 - 1000NM,
- TIME-RESOLVED FLUORESCENCE: EXCITATION 334NM
- LUMINESCENCE: 360 - 670NM
- ACCURACY 0.003ABS OR  $\pm 2\%$



# Luminometer

# BIOANALYZER



## A G I L E N T *2100*

### OPERATING TEMPERATURE

15° to 27°C

### FREQUENCY

50 to 60 Hz

### VOLTAGE

100 to 240 V





## AGILENT *2100 Bioanalyzer*

The 2100 Bioanalyzer system is an established automated electrophoresis tool for the sample quality control of biomolecules. The 2100 Bioanalyzer instrument, together with the 2100 Expert Software and Bioanalyzer assays, provide highly precise analytical evaluation of various samples types in many workflows, including next generation sequencing (NGS), gene expression, biopharmaceutical, and gene editing research.

### *Unique Features*

- REPLACEABLE ELECTRODE CARTRIDGES
- OFFERS IQ AND OQ SERVICES
- MINIMUM EXPOSURE TO HAZARDOUS MATERIALS

### *Applications*

- DNA, RNA, AND PROTEIN ANALYSIS

### *Specifications*

- AMBIENT TEMPERATURE: 15-27 °C

# Bioanalyzer

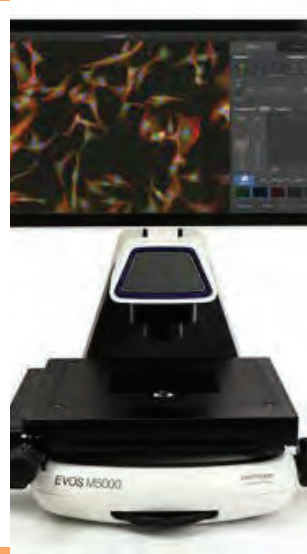
# MICROSCOPY



LAXCO  
*LMC-2000*



LAXCO  
*MS-102*



INVITROGEN  
*EVOS 5000*



INVITROGEN  
*EVOS 7000*



LEICA  
*DMI1*

**DETECTION**  
Bright-field  
Phase Contrast

**WORKING DISTANCE**  
22 mm

**MAGNIFICATION**  
4x, 10x, 40x, 100x

**DETECTION**  
Bright-field

**WORKING DISTANCE**  
20 mm

**MAGNIFICATION**  
10x, 20x

**DETECTION**  
Fluorescence  
Chromogenic

**WORKING DISTANCE**  
60 mm

**MAGNIFICATION**  
4x

**DETECTION**  
Fluorescence  
Chromogenic

**WORKING DISTANCE**  
60 mm

**MAGNIFICATION**  
4x

**DETECTION**  
Phase Contrast  
Bright-field

**WORKING DISTANCE**  
40 mm

**MAGNIFICATION**  
10x, 20x, 40x





## LAXCO *LMC2000* *Brightfield*

Provides bright, stable color temperature image. Laxco™ LMC-2000 Compound Microscope System allows for polarization elements to be easily inserted or removed from the optical path.

### *Unique Features*

- SEALED 40X TO PREVENT ACCIDENTAL DAMAGE
- COOL, STABLE, COLOR TEMPERATURE
- CORRECTED FOR EYEGLASSES
- CARRYING HANDLE
- USB CONNECTIVITY

### *Applications*

- BRIGHTFIELD
- DARKFIELD
- SIMPLE
- POLARIZATION
- PHASE CONTRAST

### *Specifications*

- WIDTH (METRIC): 20.7CM
- DIAMETER (METRIC): 40.5CM
- HEIGHT (METRIC): 38.7CM
- OPTICAL DESIGN: INFINITY, DIN, PLAN TO 22MM FOV
- EYEPIECE: 10X, 20MM FOV

Compound  
Microscope



## LAXCO *MS102 Stereo Microscope*

Utilizes fixed dual magnification optical system. Laxco™ MS Series Fixed Magnification Stereo Microscope System are research-grade instrument with wide choice of zoom magnification ranges and most commonly found in general laboratory.

### *Unique Features*

- MULTIPLE COMBINATIONS OF MAGNIFICATIONS
- DUAL DIOPTER ADJUSTMENTS
- PARFOCALITY MAINTAINED BETWEEN MAGNIFICATION
- CLEARLY MARKED NEURAL KNOBS

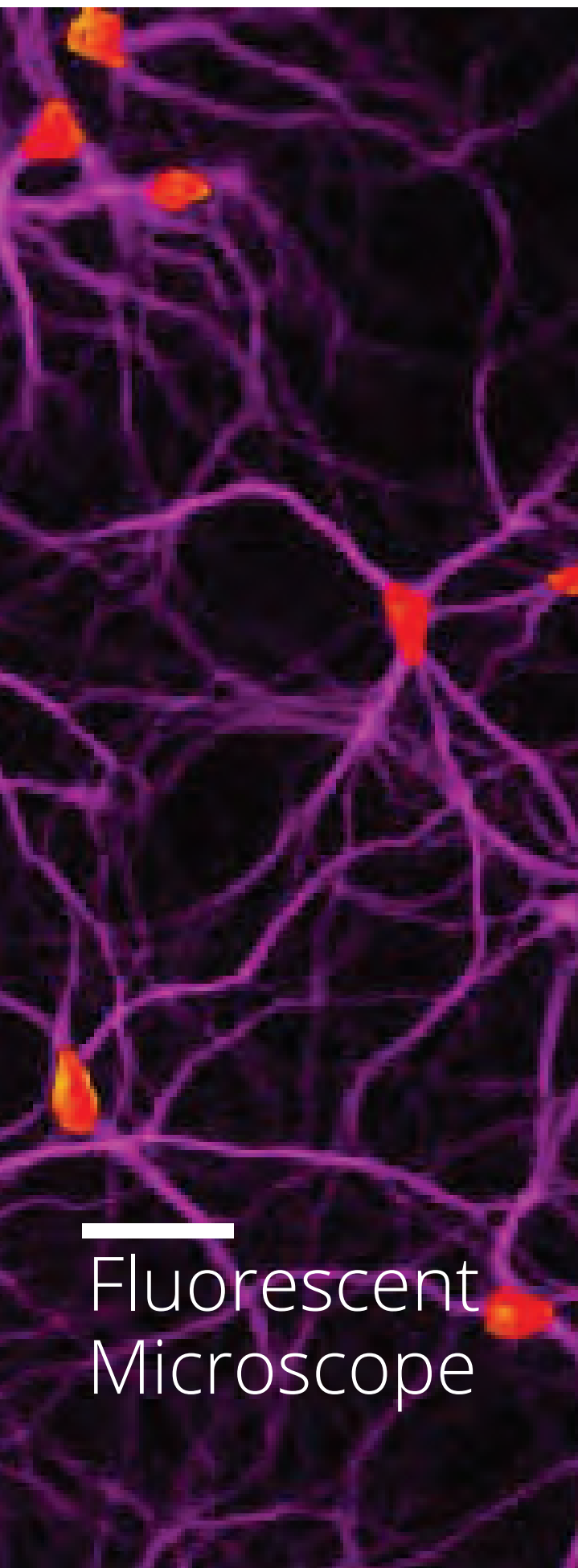
### *Applications*

- BRIGHTFIELD
- DARKFIELD
- SIMPLE

### *Specifications*

- MAGNIFICATION POWER 10X TO 20X
- EYEPIECE 10X
- TRANSMITTED FLUORESCENT
- HALOGEN REFLECTED ILLUMINATION
- FIELD OF VIEW 20MM TO 10MM

Stereo  
Microscope



## Fluorescent Microscope

# INVITROGEN *EVOS M5000* *Imaging*

The EVOS M5000 Imaging System is a fully integrated digital inverted microscope for four-color fluorescence, transmitted-light and color applications. With an interface designed for usability, an advanced, yet flexible, illumination light system, sophisticated autofocus mechanism and high-resolution CMOS camera.

## *Unique Features*

- EASY INSTALLATION
- USER DEFINED FOUR-COLOR FLUORESCENCE
- AUTO-FOCUS
- ON-BOARD SOFTWARE
- ACCESS TO THERMO FISHER CLOUD IMAGING APP

## *Applications*

- CHROMOGENIC
- COLORIMETRIC
- FLUORESCENT

## *Specifications*

- OLOR: ASSORTED COLORS
- DIMENSIONS: 18 IN (W) X 23 IN (H) X 18 IN (D)
- FOR USE WITH (EQUIPMENT): EVOS™
- PRODUCT LINE: EVOS™
- PRODUCT SIZE: 1 SYSTEM
- SHIPPING CONDITION: ROOM TEMPERATURE
- WEIGHT: 36 LB



A vertical fluorescent micrograph on the left side of the page. It shows a dense network of green filaments, likely actin, with red puncta scattered throughout. Several large, dark, irregular shapes are visible, possibly representing nuclei or large organelles. The background is dark, and the overall image has a high-contrast, scientific appearance.

## INVITROGEN *EVOS M7000* *Imaging*

The EVOS M7000 Imaging System is a high-performance, fully automated, inverted, multi-channel fluorescence and transmitted light imaging system. It was developed to meet today's expectations for image quality, user interface interactions, data generation speed and flexibility, and end-user value.

### *Unique Features*

- OUTSTANDING IMAGE QUALITY AND VERSATILITY
- EXCEPTIONAL USABILITY WITH FULLY AUTOMATED
- HIGH-SPEED IMAGE ACQUISITION
- FULLY INTEGRATED TIME-LAPSE LIVE CELL IMAGING
- POWERFUL IMAGE ANALYSIS

### *Applications*

- CHROMOGENIC
- FLUORESCENT

### *Specifications*

- MPRODUCT LINE: EVOS™
- PRODUCT SIZE: 1 SYSTEM
- SHIPPING CONDITION: ROOM TEMPERATURE
- CAMERAS: HIGH-SENSITIVITY 3.2 MP
- CONDENSER: 60-MM LONG WORKING DISTANCE

Fluorescent  
Microscope



# LEICA MICROSYSTEMS *DMi1 Inverted Microscope*

The Leica DMI1 inverted microscope supports your specific work routine in your cell culture lab. Its operation is so intuitive, its handling so comfortable that you can fully concentrate on your work. Choose the functions you need, and, if necessary, you can easily add a variety of accessories that are important for your work.

## *Unique Features*

- LED LUMINATION
- AUTO INTENSITY
- QUICK CHANGE WORKING DISTANCE
- DATA STORAGE
- MODULAR EXPANSION

## *Applications*

- BRIGHTFIELD
- AUTOMATED
- PHASE CONTRAST

## *Specifications*

- FIELD OF VIEW 18 MM
- HEAD: BINOCULAR W/ INTEGRATED EYEPIECES
- EYEPIECES: 10X/18MM EYEPIECES FIXED
- NOSEPIECE: 4 POSITION
- OBJECTIVES: HI PLAN 4X, PHASE CONTRAST
- S80 CONDENSER - 80MM WORKING DISTANCE
- 2 POSITION SLIDERS
- STAGE: PLAIN FLAT TOP STAGE



# CROSSLINKING



## F I S H E R B R A N D *UV CROSSLINKER*

### HERTZ

50 - 60 Hz

### TEMPERATURE

16 to 28 °C



## FISHERBRAND *UV Crosslinker*

Provides a safe, time-efficient solution with a controlled amount of ultraviolet radiation.

### *Unique Features*

- LARGE UV PROTECTIVE WINDOW
- NO MORE MANUAL CALIBRATION REQUIRED
- TWO MODES OF OPERATION - ENERGY OR TIME

### *Applications*

- CROSS-LINKING DNA OR RNA TO MEMBRANES
- SOUTHERNS AND NORTHERNS PREPARATION

### *Specifications*

- TEMPERATURE RANGE (METRIC): 16° TO 28°C
- HERTZ: 50/60HZ

UV  
Crosslinker

# IMAGING



**B I O - R A D**  
*CHEMIDOC MP*



**I N V I T R O G E N**  
*IBRIGHT FL1000*

## **DETECTION METHODS**

Colorimetric  
Chemiluminescent  
Fluorescent

## **APPLICATIONS**

Electrophoresis  
Multiplex Western Blots  
Identify/Quantify Proteins  
Identify/Quantify Nucleic Acids  
Protein-ligand Interactions

## **DETECTION METHODS**

Chemiluminescent,  
IR Fluorescence,  
Nucleic acid gels,  
RGB Fluorescence

## **APPLICATIONS**

Chemiluminescence Westerns  
Protein Gels  
DNA Gels  
Multiplex Western Blots  
Near-IR Western Blots  
RGB Fluorescence Western Blots



## BIO-RAD *ChemiDoc MP*

ChemiDoc Imagers offer best-in-class performance with ease of use for visible light (RGB) and far red/near infrared (FR/NIR) fluorescence and chemiluminescence detection and all general gel documentation applications. Stain-free imaging enables immediate visualization of proteins without gel staining and instant verification of protein transfer to blots.

### *Unique Features*

- SENSITIVE DETECTION OF SECONDARY ANTIBODIES
- LOW FLUORESCENCE BACKGROUND
- CHEMILUMINESCENCE SENSITIVITY
- EASY-TO-USE SOFTWARE
- MULTIPLEX FLUORESCENCE DETECTION
- STAIN-FREE PROTEIN NORMALIZATION

### *Applications*

- ELECTROPHORESIS
- BLOTTING

### *Specifications*

- DATA OUTPUT 16-BIT OR 8-BIT: SCN, TIFF, JPEG FILES
- OPERATING TEMPERATURE 10-28°C
- OPERATING HUMIDITY 10-85% RELATIVE HUMIDITY
- DETECTOR COOLED CCD, 6 MEGAPIXELS
- MAXIMUM IMAGE AREA (W X H) 21 X 16.8 CM

Gel  
Imaging



# Gel Imaging

## INVITROGEN *iBright FL1000*

apture images and analyze data from western blots and gels efficiently and easily with the Invitrogen iBright FL1000 Imaging System. This high-performance instrument enhances the imaging experience through powerful hardware, advanced automated technologies, and an interface that is easy to use for researchers of all experience levels.

### *Unique Features*

- 9.1 MP COOLED CCD CAMERA
- FIVE FLUORESCENCE CHANNELS
- SMART EXPOSURE TECHNOLOGY
- SIMPLE INTERFACE
- ADVANCED AUTOMATED FEATURES

### *Applications*

- IMAGING FLUORESCENT WESTERN BLOTS
- CHEMILUMINESCENT WESTERN BLOTS,
- STAINED PROTEIN AND NUCLEIC ACID GELS

### *Specifications*

- NUMBER OF CHANNELS: 7 POSITIONS MOTORIZED
- DIMENSIONS: 68.0 X 38.2 X 59.8 CM
- FIELD: 22.5 X 18.0 CM
- PRODUCT LINE: IBRIGHT™
- PRODUCT SIZE: 1 SYSTEM
- WEIGHT: 50 KG (110 LBS)
- SHIPPING CONDITION: ROOM TEMPERATURE



# IMMUNASSAY



L U M I N E X  
*MAGPIX XPONENT*



M E S O   S C A L E  
*MESO QUICKPLEX SQ  
120*

## DETECTION

Electrochemiluminescence

## APPLICATIONS

Biomarker analysis

Cell signaling assays

Gene expression quantification

## DETECTION

Electrochemiluminescence

## APPLICATIONS

Biomarker analysis

Cell signaling assays



# LUMINEX *MAGPIX®* System

The MAGPIX® system, combined with our MILLIPLEX® MAP magnetic bead-based multi-analyte panels, MILLIPLEX® Analyst 5.1 software and technical support, provides you with a complete smaller scale solution for rapid, accurate biomarker quantification.

## Unique Features

- LOW-COST
- MORE THAN 125 BEAD-BASED ASSAY KITS
- MULTIPLEX
- EASE OF USE - CCD IMAGING

## Applications

- BIOMARKER ANALYSIS AND QUANTIFICATION
- CELL SIGNALING ASSAYS

## Specifications

- TEMPERATURE: 15 °C - 35 °C (59 °F - 95 °F)
- HUMIDITY: 20% - 80%RH, NON-CONDENSING
- ANALYZE MULTIPLE 96-WELL PLATES PER BATCH
- ANALYZE MULTIPLE ASSAY TEMPLATES PER PLATE
- SAMPLE UPTAKE VOLUME 20 ML - 200 ML
- REMOVABLE DRIVE BOTTLE AND WASTE BOTTLE
- DISPOSABLE DRIVE BOTTLE VOLUME: 650 ML
- WASTE BOTTLE VOLUME: 850 ML

Immunoassay



## MESO SCALE *MESO QuickPlex* SQ 120

The QuickPlex instrument is the newest multiplexing instrument from MSD, offering affordable access to high-performance, electrochemiluminescence immunoassays. This compact system has been engineered for reliability, ease of use, and low cost of ownership. The combination of rapid read times and the ability to perform multiple, simultaneous tests on a single sample increases productivity, saves sample, and delivers results quickly.

### *Unique Features*

- ECL DETECTION FOR BEST SENSITIVITY
- SINGLE AND MULTIPLEX ASSAYS
- SINGLE-WELL READ MODE
- SMALL FOOTPRINT
- ULTRA-FAST READ TIMES
- DEVELOPED UNDER DESIGN CONTROL
- WINDOWS 7 COMPATIBLE

### *Applications*

- BIOMARKER ANALYSIS AND QUANTIFICATION
- CELL SIGNALING ASSAYS

### *Specifications*

- DETECTION ELECTROCHEMILUMINESCENCE
- READ TIME SECTOR ASSAY PLATES: 1 MIN 30 SEC
- QUICKPLEX ASSAY PLATES: 2 MIN 45 SEC
- MULTIPLEX CAPABLE UP TO 10 ASSAY SPOTS PER WELL
- INSTRUMENT DYNAMIC RANGE > 10<sup>5</sup>

Immunoassay

# SONICATORS



F I S H E R B R A N D

*705 SONIC  
DISMEMBRATOR*

## APPLICATIONS

IDEAL FOR CELL DISRUPTION  
HOMOGENIZATION  
CHIP/DNA SHEARING  
NANO PARTICLE DISPERSION  
PROTEIN EXTRACTION  
SONOCHEMISTRY  
SOIL EXTRACTION  
MIXING





## FISHERBRAND *Model 705 Sonic Dismembrator*

Ultra-high power with advanced programming for all liquid processing applications, 220V. Includes standard 1/2 in. Replaceable tip probe (#FB4220) for processing 20-250 mL volumes. There are many probe size options available which allow for processing 0.2-1000 mL volumes.

### *Unique Features*

- PROGRAMMABLE FROM 1 SEC. TO 99 HR.S.
- SAVE UP TO 10 DIFFERENT PROGRAMS
- PULSE MODE (1 SECOND TO 24 HOURS)
- OPTIONAL TEMPERATURE MONITORING

### *Applications*

- IDEAL FOR CELL DISRUPTION
- HOMOGENIZATION
- CHIP/DNA SHEARING
- NANO PARTICLE DISPERSION
- PROTEIN EXTRACTION
- SONOCHEMISTRY
- SOIL EXTRACTION
- MIXING

### *Specifications*

- CAPACITY (METRIC): 0.2 TO 1000ML
- HERTZ: 50/60HZ
- WATTAGE: 700W
- TIMER: 1 SEC. TO 99 HRS.



# WATER BATHS



F I S H E R B R A N D  
*CPXH HEATED  
ULTRASONIC*

**MAX TEMPERATURE**  
69°C

**CAPACITY**  
5.7 L



T H E R M O  
S C I E N T I F I C  
P R E C I S I O N <sup>TM</sup> G E N E R A L  
P U R P O S E B A T H

**MAX TEMPERATURE**  
100°C

**CAPACITY**  
10 L



## FISHERBRAND *CPXH Series*

Outfit your lab with an industry classic. Fisher Scientific™ Ultrasonic Tabletop Cleaners offer rock-solid construction plus a hi-tech design and will provide you with years of reliable use.

### *Unique Features*

- PROGRAMMABLE FUNCTIONALITY ALLOWS USER
- REPRODUCIBLE RESULTS
- AUTOMATIC ULTRASONIC ACTIVATION
- HIGH/LOW POWER CONTROL
- FEATURES AN ENERGY-SAVING SLEEP MODE
- HIGH-TEMP SAFETY ALARM INDICATOR

### *Applications*

- CLEANING

### *Specifications*

- SWEEP FREQUENCY ELIMINATES STANDING WAVES
- CAVITATION THROUGHOUT TANK
- 40KHZ RUGGED INDUSTRIAL TRANSDUCERS
- 99-MINUTE DIGITAL TIMER
- CAN BE HEATED UP TO 69°C/156.2°F

Ultrasonic  
Bath



# Water Bath

## THERMO SCIENTIFIC™ *Precision™ General Purpose Bath*

Thermo Scientific Precision™ General Purpose Baths are designed to maintain water temperature from ambient to 100°C

### *Unique Features*

- ADVANCED MICROPROCESSOR CONTROLLER
- AUDIBLE ALARMS
- SAVE COMMONLY USED SETTINGS
- ENHANCED HINGE DESIGN
- LOW-FLUID PROTECTION
- QUICK DISCONNECT DRAIN

### *Applications*

- INCUBATE SAMPLES

### *Specifications*

- CHAMBER MATERIAL STAINLESS STEEL
- DISPLAY MONOCHROME LCD
- TEMPERATURE UNIFORMITY  $\pm 0.2^{\circ}\text{C}$
- TEMPERATURE STABILITY  $\pm 0.1^{\circ}\text{C}$
- TEMPERATURE PRESETS 4



# PH METERS



FISHER BRAND  
*ACCUMET*  
*XL150*

**MAX TEMPERATURE**  
105°C

**ACCURACY**  
±0.002 pH



FISHER BRAND  
*ACCUMET*  
*XL200*

**MAX TEMPERATURE**  
105°C

**ACCURACY**  
±0.002 pH





## FISHER SCIENTIFIC *Accumet XL150*

Provide advanced pH measurements with simple operation and offer a large, vivid color touch-screen display. Fisherbrand Accumet XL benchtop meters offer advanced features with simple operation to help ensure your measurements are reliable and your laboratory processes are efficient.

### *Unique Features*

- ONE TO SIX POINT PH CALIBRATION
- TWO TO SIX POINT ISE CALIBRATION
- REAL-TIME ONSCREEN GRAPHING OF MEASUREMENTS
- USB PORTS FOR PRINTER OR COMPUTER INTERFACING
- TWO PORTS FOR OPTIONAL STIRRING PROBE
- FIVE SPEED SETTINGS

### *Applications*

- MONITORING OF CRUCIAL PROCESS PARAMETERS

### *Specifications*

- PH RANGE: -2.000 TO 20.000 PH
- PH RESOLUTION: 0.1, 0.01, 0.001 PH
- PH ACCURACY:  $\pm 0.002$  PH
- ISE RANGE: 0.001 TO 19999 PPM, MG/L OR MOLAR
- ISE RESOLUTION: 0.001, 0.01, 0.1, 1
- TEMPERATURE RANGE: -5° TO +105°C

PH Meter



## PH Meter

# FISHER SCIENTIFIC *Accumet XL200*

Provide advanced measurements with simple operation and offer a large, vivid color touch-screen display that allows for dynamic functionality. Fisherbrand accumet XL200 pH/Conductivity benchtop meters offer advanced features with simple operation to help ensure your measurements are reliable and your laboratory processes are efficient.

## *Unique Features*

- ONE TO SIX POINT PH CALIBRATION
- TWO TO SIX POINT ISE CALIBRATION
- REAL-TIME ONSCREEN GRAPHING OF MEASUREMENTS
- USB PORTS FOR PRINTER OR COMPUTER INTERFACING
- TWO PORTS FOR OPTIONAL STIRRING PROBE
- FIVE SPEED SETTINGS

## *Applications*

- MONITORING OF CRUCIAL PROCESS PARAMETERS

## *Specifications*

- PH RANGE: -2 TO 20
- PH RESOLUTION: 0.1, 0.01, 0.001 PH
- PH ACCURACY:  $\pm 0.002$  PH
- ISE RANGE: 0.001 TO 19999 PPM, MG/L OR MOLAR
- ISE RESOLUTION: 0.001, 0.01, 0.1, 1
- RESOLUTION: 0.1°C

# SHAKERS



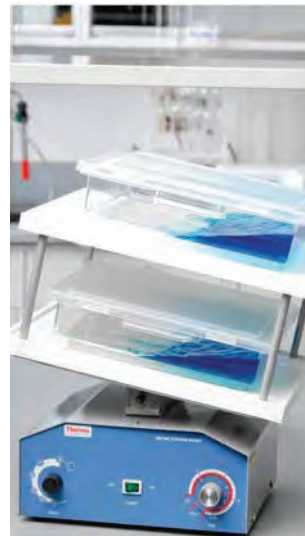
EPPENDORF  
*NEW  
BRUNSWICK  
S41I*



EPPENDORF  
*INNOVA  
S44I*



THERMO  
SCIENTIFIC  
*COMPACT  
DIGITAL  
SHAKER*



THERMO  
SCIENTIFIC  
*VARI-MIX  
PLATFORM  
SHAKER*



FISHERBRAND  
*ISOTEMP  
HOT PLATE  
STIRRER*

**MAX SPEED**  
400 rpm

**MAX SPEED**  
400 rpm

**MAX SPEED**  
1200 rpm

**MAX SPEED**  
30 rpm

**MAX SPEED**  
400 rpm

**TEMPERATURE  
RANGE**  
+4 °C TO 50 °C

**TEMPERATURE  
RANGE**  
0 °C TO 50 °C

**TEMPERATURE  
RANGE**  
Ambient

**TEMPERATURE  
RANGE**  
Ambient

**TEMPERATURE  
RANGE**  
Ambient To 540°C





## EPPENDORF *New Brunswick* *S41i*

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The S41i precisely controls temperature, shaking speed, and CO<sub>2</sub>, providing the ideal environment for growing mammalian and stem cells in culture.

### *Unique Features*

- STANDARD HIGH TEMPERATURE DISINFECTION
- INTUITIVE TOUCH SCREEN
- PERFORATED SHELF ALLOWS FOR STATIC INCUBATION
- 72-HOUR CONTINUOUS DATA LOGGING
- INCUBATOR WITH BUILT IN SHAKER

### *Applications*

- CULTURING OF SUSPENSION CELLS
- INCUBATING ADHERENT CELLS

### *Specifications*

- SPEED RANGE 25 - 400 RPM
- TEMPERATURE RANGE +4 °C TO 50 °C
- CO<sub>2</sub> RANGE 0.1-20 %
- CAPACITY 170 L

---

Incubator  
Shaker



## Refrigerated Shaker

# EPPENDORF *Innova S44i*

The new Innova S44i Biological Shaker is the next great addition to our renowned portfolio of life science solutions. Expand the potential of your lab and reap the benefits of the exceptional performance and reliability that come with every Eppendorf product.

## *Unique Features*

- HIGHEST FLASK CAPACITY
- EPPENDORF X-DRIVE
- HIGH TEMPERATURE UNIFORMITY
- EASILY REACH ALL YOUR SAMPLES
- GLIDE-UP DOORS
- NEW TOUCHSCREEN USER INTERFACE
- CREATE MULTI-STEP PROGRAMS
- PHOTOSYNTHETIC LED LIGHT BANK

## *Applications*

- GROW BACTERIA, YEAST, FUNGUS, AND ALGAE
- PLASMID DNA PRODUCTION AND PROTEIN EXPRESSION
- PROCESS AND MEDIA DEVELOPMENT
- MEDIA SCREENING AND OPTIMIZATION
- SEED CULTURES FOR BIOPROCESS SCALE-UP
- BIOFUEL RESEARCH
- FOOD QUALITY TESTING

## *Specifications*

- TEMPERATURE ACCURACY:  $\pm 0.1$  °C AT 37 °C
- TIMER: 0.01 – 95.59 H, CONTINUOUS





Shaker

# THERMO SCIENTIFIC™ *Compact Digital Microplate Shaker*

Harness the efficiency of our microplate shaker, which is capable of shaking up to four microplates in one run.

## *Unique Features*

- DIGITAL DISPLAY FOR EASY VIEWING
- COMPACT DESIGN
- TIMER RANGE: CONTINUOUS OR 1MIN TO 99HRS
- AUTOMATIC OVERLOAD SHUTDOWN: 4.4KG / 9.7LBS

## *Applications*

- SHAKE PLATES, GELS, AND FLASKS

## *Specifications*

- SPEED 150 TO 1,200RPM
- ORBIT 3MM (0.12 IN.)
- TIMER 1 MIN. TO 99 HR. 59 MIN./CONTINUOUS



Shaker

## THERMO SCIENTIFIC™ *Vari-Mix™ Platform Rocker*

Utilize the steep angle rocking of the Thermo Scientific™ Vari-Mix™ Platform Rocker for applications such as hybridization, blotting and staining or destaining gels.

### *Unique Features*

- LARGE WHITE NONSKID RUBBER MIXING PLATFORM
- TIMER CAN BE SET FOR CONTINUOUS
- PLATFORM REMOVES EASILY
- ALL FINISHES ARE CHEMICAL-RESISTANT
- OPTIONAL DOUBLE-TIER PLATFORM

### *Applications*

- SHAKE PLATES, GELS, AND FLASKS

### *Specifications*

- SPEED RANGE 5 TO 30 RPM
- VOLTAGE 120V
- ROCKING ANGLE 1 TO 48°



## FISHERBRAND™ *Isotemp™ Hotplate Mixer*

Experience precise stirring control, exceptional safety and temperature performance for your routine protocols.

### *Unique Features*

- SLOW-SPEED STIRRING
- CONSISTENT SPEED CONTROL
- STRONG MAGNETIC COUPLING
- TEMPERATURE ADJUSTABLE IN 1 DEGREE INCREMENTS
- AUTOMATIC OVER-TEMPERATURE PROTECTION

### *Applications*

- SHAKE PLATES, GELS, AND FLASKS

### *Specifications*

- MAX TEMP 540°C
- MAGNETIC ELECTRIC STIRRER

Shaker



# CENTRIFUGES



EPPENDORF  
*5424*

EPPENDORF  
*5424R*

EPPENDORF  
*5430*

EPPENDORF  
*5702R*

EPPENDORF  
*5910R*

EPPENDORF  
*MINISPIN  
PLUS*

**MAX SPEED**  
15,000 rpm

**MAX SPEED**  
15,000 rpm

**MAX SPEED**  
17,500 rpm

**MAX SPEED**  
15,000 rpm

**MAX SPEED**  
14,000 rpm

**MAX SPEED**  
14,500 rpm

**MAX ROTOR CAPACITY**  
24 x 2 mL

**MAX ROTOR CAPACITY**  
24 x 2 mL

**MAX ROTOR CAPACITY**  
6 x 50 mL

**MAX ROTOR CAPACITY**  
4 x 100 mL

**MAX ROTOR CAPACITY**  
4 x 750 mL

**MAX ROTOR CAPACITY**  
12 x 2 mL

**TEMPERATURE  
RANGE**  
10 °C TO 40 °C

**TEMPERATURE  
RANGE**  
Ambient

**TEMPERATURE  
RANGE**  
Ambient

**TEMPERATURE  
RANGE**  
9 °C TO 40 °C

**TEMPERATURE  
RANGE**  
11 °C TO 40 °C

**TEMPERATURE  
RANGE**  
Ambient



## EPPENDORF 5424R

Centrifuge 5424 R is the refrigerated 24-place standard microcentrifuge for temperature sensitive samples. It offers efficient cooling performance for up to 24 x 1.5/2.0 mL tubes

### *Unique Features*

- TEMP RANGE FROM -10 °C TO +40 °C
- GUARANTEED TEMPERATURE OF 4 °C
- ECO POWER SHUT-OFF
- COMPRESSOR TECHNOLOGY REDUCES VIBRATIONS
- BUILT-IN CONDENSATION DRAIN

### *Applications*

- SEDIMENTATION

### *Specifications*

- MAX. ROTOR CAPACITY: 24 x 1.5/2.0 ML VESSELS
- MAX. SPEED: 21,130 x G (15,000 RPM)
- TEMPERATURE RANGE FROM -10 °C TO +40 °C
- TIMER: 30 S TO 9:59 H, WITH CONTINUOUS RUN
- VOLUME RANGE: 48 ML



# Centrifuge

# EPPENDORF 5910R

The refrigerated Centrifuge 5910 R combines high capacity and performance in a compact and ergonomic product design. It comes with a modern user interface and an advanced temperature management system.

## *Unique Features*

- SWING-BUCKET ROTORS AND ADAPTERS
- PLATE ROTOR OPTIONS
- FIXED-ANGLE ROTORS FOR HIGH-SPEED
- HIGH CENTRIFUGATION SPEED
- CENTRIFUGE LID WITH SOFT-TOUCH LID CLOSURE
- AUTOMATIC ROTOR RECOGNITION

## *Applications*

- SEDIMENTATION

## *Specifications*

- MAX. RCF 22,132 × G
- MAX. RCF WITH FIXED-ANGLE ROTOR 22,132 × G
- MAX. RCF WITH SWING-BUCKET ROTOR 5,234 × G
- SPEED 100 – 14,000 RPM
- MAX. CAPACITY 4 × 750 ML/4 × 5 MTP
- TEMPERATURE CONTROL RANGE -11 °C TO 40 °C



Centrifuge



## EPPENDORF 5702R

The 5702 family of low speed, general purpose centrifuges was especially designed to meet the requirement of low- to mid-throughput clinical research and cell culture labs. They are compact in design so that one can fit comfortably on every lab bench, quiet in operation to benefit your work environment.

### *Unique Features*

- VERY QUIET
- LOW ACCESS HEIGHT FOR SIMPLE LOADING
- SOFT BRAKE FUNCTION
- OPTIMIZED FOR CELL SEPARATION
- STAINLESS STEEL ROTOR CHAMBER
- ELECTRONIC IMBALANCE DETECTION

### *Applications*

- SEDIMENTATION

### *Specifications*

- TEMPERATURE SETTINGS FROM -9 °C TO 40 °C
- TIMER 0 - 99 MIN, WITH CONTINUOUS RUN
- VOLUME RANGE 400 ML
- MAX. CAPACITY 4 × 100 ML

# Centrifuge



## EPPENDORF 5430

Microcentrifuge with multipurpose capabilities  
Unique cross-over Centrifuge 5430 and 5430 R combine the best features of a microcentrifuge (small footprint) and multipurpose centrifuge (versatility) in one instrument.

### *Unique Features*

- REMARKABLE VERSATILITY WITH 12 ROTORS
- SOFT-TOUCH ONE-FINGER LID CLOSURE
- MENU-DRIVEN, MULTI LINGUAL OPERATION MENU
- 5 PROGRAM KEYS FOR EASY ACCESS
- SAVES UP TO 50 USER-DEFINED PROGRAMS

### *Applications*

- SEDIMENTATION

### *Specifications*

- MAX. ROTOR CAPACITY: 48 × 1.5/2.0 ML, 6 × 50 ML
- MAX. SPEED: 30,130 × G (17,500 RPM)

Centrifuge



# EPPENDORF 5424

Centrifuge 5424 R is the refrigerated 24-place standard microcentrifuge for temperature sensitive samples. It offers efficient cooling performance for up to 24 x 1.5/2.0 mL tubes.

## *Unique Features*

- OPTIBOWL® DESIGN FOR QUIET OPERATION
- SOFT-TOUCH ONE-FINGER LID CLOSURE
- ECO POWER SHUT-OFF ENGAGES AFTER 8 HOURS

## *Applications*

- SEDIMENTATION

## *Specifications*

- MAX. RCF 21,130 × G
- MAX. CAPACITY 24 × 1.5/2.0 ML
- VOLUME RANGE 48 ML



# Centrifuge



## EPPENDORF *MiniSpin Plus*

Entry-level centrifuges that are powerful and easy-to-use. They are small enough so that each workstation can be equipped with a »personal« centrifuge. Two models are available to meet your performance requirements.

### Unique Features

- AUTOMATIC RPM/RCF CONVERSION
- EXTENDED TIME TO 99 MIN OR CONTINUOUS

### Applications

- SEDIMENTATION

### Specifications

- SPEED: 800 - 14,500 RPM (100 RPM STEPS)
- MAX. CAPACITY 12 × 1.5/2.0 ML
- ACCELERATION TIME 13 S
- MAX. RCF 14,100 × G

Centrifuge

# SPECTROPHOTOMETERS



E P P E N D O R F  
*BIO-  
PHOTOMETER  
D30*



T H E R M O  
S C I E N T I F I C  
*NANODROP  
PNE*

**WAVELENGTH RANGE**  
230 - 600 nm

**WAVELENGTH RANGE**  
190 - 850 nm



## EPPENDORF *BioPhotometer* D30

The Eppendorf BioPhotometer D30 is the third generation of Eppendorf's well-established line of BioPhotometers. The compact instrument clearly processes data, records at fixed wavelengths and makes evaluating results fast and simple.

### *Unique Features*

- ABSORPTION MEASUREMENTS FOR ONE OR MORE FIXED
- SCAN FOR SPECIFIC UV APPLICATIONS
- AUTOMATICALLY DETERMINED PURITY RATIOS
- PREPROGRAMMED APPLICATIONS FOR QUICK START
- INTEGRATED APPLICATION AND RESULTS MEMORY
- DATA TRANSFER VIA USB, ETHERNET OR VIA E-MAIL

### *Applications*

- NUCLEIC ACID QUANTIFICATION
- DIRECT PROTEIN QUANTIFICATION (UV 280 NM)
- MICROVOLUME MEASUREMENT VIA MCVETTE
- BACTERIA GROWTH MEASUREMENT (OD 600)
- PROTEIN QUANTIFICATION
- 490 NM: CYTOTOXICITY ENDPOINT ASSAY

### *Specifications*

- ABSORPTION RANGE 0 A – 3.0 A (260 NM)
- WAVELENGTH RANGE : 230 - 600 NM

Spectrophotometer





# THERMO SCIENTIFIC *NanoDrop One*

Prevent costly delays with an enhanced understanding of sample quality using the Thermo Scientific™ NanoDrop™ One Microvolume UV-Vis Spectrophotometers. Innovative Thermo Scientific™ Acclaro™ Sample Intelligence technology is built into every instrument for improved measurement accuracy and contaminant identification.

## *Unique Features*

- ACCLARO SAMPLE INTELLIGENCE TECHNOLOGY
- CONNECTIVITY FOR STORAGE, PRINTING AND SHARING
- INTEGRATED LEARNING CENTER
- NO DILUTIONS REQUIRED

## *Applications*

- QUANTIFY NUCLEIC ACID AND LABELED NUCLEIC ACIDS
- QUANTIFY PROTEIN SAMPLES AND LABELLED PROTEINS
- MEASURE DNA AND RNA
- OPTICAL DENSITY
- CALCULATE SAMPLE PURITY

## *Specifications*

- SAMPLE TEMPERATURE 37 °C
- PHOTOMETRIC RANGE PEDESTAL: 0–550 A;
- SAMPLE VOLUME (METRIC) MINIMUM 1ML
- SPECTRAL BANDWIDTH  $\leq 1.8$  NM
- VOLTAGE 12 V (DC)
- WAVELENGTH ACCURACY  $\pm 1$  NM
- WAVELENGTH RANGE 190–850 NM

Spectrophotometer

# CHROMATOGRAPHY



A G I L E N T  
*1260 HPLC*

*Applications*

*Water Purification*  
*Protein Purification*



G E  
H E A L T H C A R E  
*AKTA go FPLC*

*Applications*

*Water Purification*  
*Protein Purification*



## AGILENT *1260 High*

# *Performance Liquid Chromatography*

The Agilent 1260 Series HPLC System is a must have for an analytical lab. The modular and compact design of the HPLC System allows users to configure to their needs while taking up a minimal amount of bench space. This HPLC system features a powerful combination of speed, resolution, and sensitivity with a high throughput and improved quality of results.

### *Unique Features*

- Vialsampler
- Quaternary Pump
- Diode Array Detector (DAD)
- Thermostat
- All in One HP Desktop

### *Applications*

- Purify Samples
- Isolate and Separate Compounds
- Monitor Degradation and Stability

### *Specifications*

- TEMPERATURE RANGE 4-40°C
- WAVELENGTH BUNCHING 1 – 400 NM
- DIODE WIDTH < 1 NM
- FLOW CELL STANDARD 13-ML VOLUME
- NUMBER OF CHANNELS - 4
- INTERNAL VOLUME 1 ML PER CHANNEL
- PH RANGE 1 – 14

High Performance  
Liquid  
Chromatography



High Performance  
Liquid  
Chromatography

## GE HEALTHCARE

# *AKTA go Fast Protein Liquid Chromatography*

ÄKTA go has been developed for automated chromatography from the heritage of our fast protein liquid chromatography (FPLC) technology. With flow rates of up to 25 mL/min and pressure of up to 5 MPa, you are all set for affinity, size exclusion, or ion exchange chromatography. Basically, ÄKTA go and UNICORN software will provide you with simple automated chromatography and trusted results. You focus on the science—not on the protein purification system.

### *Unique Features*

- Fraction Collector
- Finger Tightening Column
- Three Buffer Inlets

### *Applications*

- Protein Purification
- Isolate and Separate Compounds

### *Specifications*

- Flow Rate: 0.01 to 25 mL/min
- UV Wavelength: 280 nm
- Operating Pressure: Max 5 Pa



# BLOTS AND GELS



INVITROGEN  
*E-GEL POWER  
SNAP SYSTEM*

INVITROGEN  
*IBIND*

INVITROGEN  
*IBLOT 2*

INVITROGEN  
*XCELL  
SURELOCK*

INVITROGEN  
*MINI GEL  
TANK*

## APPLICATIONS

Electrophoresis

## APPLICATIONS

Western Blots

## APPLICATIONS

Western Blots

## APPLICATIONS

Electrophoresis

## APPLICATIONS

Electrophoresis

# INVITROGEN *E-Gel Power Snap* System

The Invitrogen E-Gel Power Snap Electrophoresis System's integrated design combines the convenience of rapid, real-time nucleic acid analysis with the precision of high-resolution image capture to reduce workflow time and accelerate discovery.

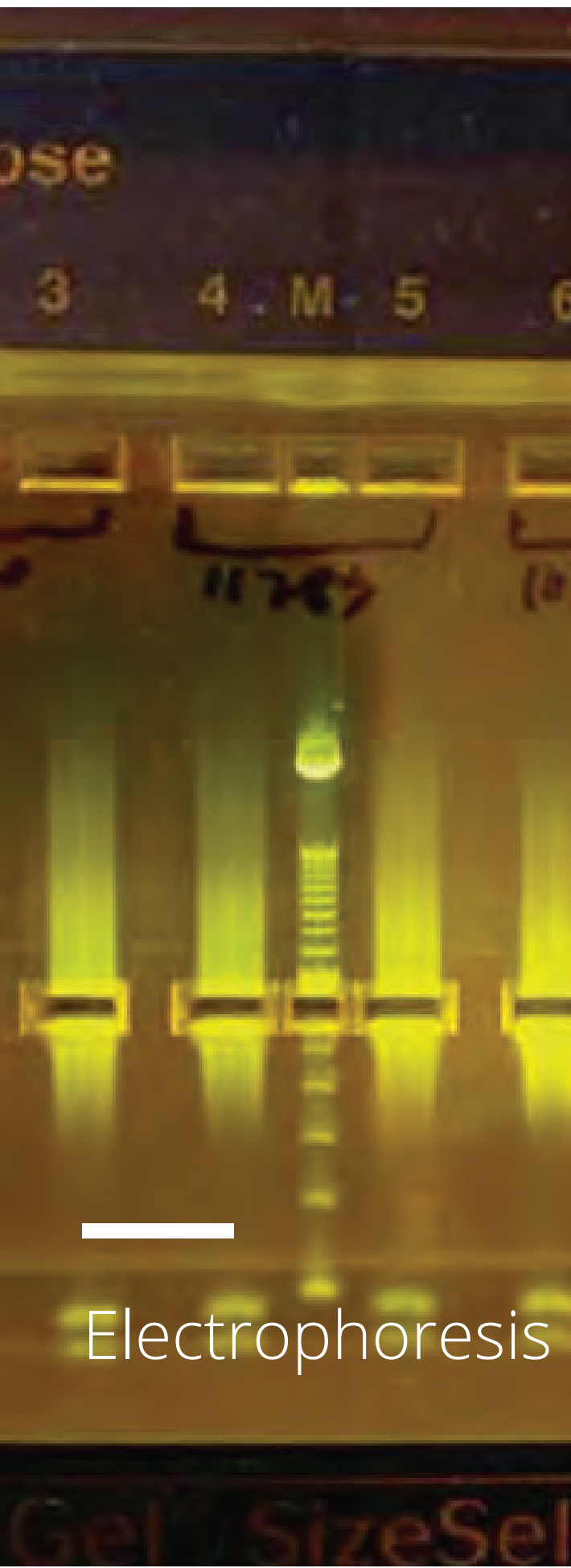
## Unique Features

- SMALL, FAST, AND POWERFUL
- THE ALL-IN-ONE E-GEL POWER SNAP ELECTROPHORESIS DEVICE PROVIDES EVERYTHING YOU NEED FOR DNA GEL ELECTROPHORESIS AND GEL VISUALIZATION IN A SMALL LIGHTWEIGHT BENCHTOP SYSTEM. THE SYSTEM INCLUDES AN ELECTROPHORESIS POWER SUPPLY, BLUE-LIGHT TRANSILLUMINATOR, AND AMBER FILTER. THIS ENABLES GEL SEPARATION AND REAL-TIME SAMPLE TRACKING ON E-GEL AGAROSE GELS PRE-STAINED WITH SYBR SAFE OR SYBR GOLD II DNA STAINS. THE DEVICE ARRIVES WITH PRE-PROGRAMMED PROTOCOLS FOR EACH TYPE OF COMPATIBLE E-GEL AGAROSE GEL.
- UNSURPASSED CONVENIENCE OF DRY PRECAST E-GEL AGAROSE GELS
- RUN DNA SAMPLES IN AS LITTLE AS 10 MINUTES WITH DRY, PRECAST, PRE-STAINED E-GEL AGAROSE GELS. THE E-GEL DRY PRECAST AGAROSE GEL TECHNOLOGY PROVIDES SPEED AND CONVENIENCE, ELIMINATING ANY NEED FOR GEL PREPARATION OR STAINING. E-GEL AGAROSE GELS ARE AVAILABLE IN A VARIETY OF GEL PERCENTAGE AND A CHOICE OF TWO DNA STAINS. THE E-GEL POWER SNAP ELECTROPHORESIS DEVICE IS COMPATIBLE WITH ALL LOW-THROUGHPUT E-GEL PRECAST AGAROSE GELS, INCLUDING E-GEL EX, E-GEL SYBR SAFE, E-GEL GO!, E-GEL CLONWELL II, AND E-GEL SIZESELECT II GELS\*.
- IDEAL FOR CLONING WORKFLOW

## Applications

- SEPARATION OF DNA
- VISUALIZATION OF ISOLATED DNA

# Electrophoresis



Electrophoresis

## INVITROGEN *iBind Flex*

The iBind Flex Western Device is an automated western-processing device that performs every step from blocking to washes to antibody incubations via sequential lateral flow (SLF). SLF allows the timely release and flow of solutions and antibodies to the membrane without need of an external power source. Each solution is released from the iBind Flex device wells to an iBind Flex Card via SLF; the solutions are then wicked towards the stack region of the card.

### *Unique Features*

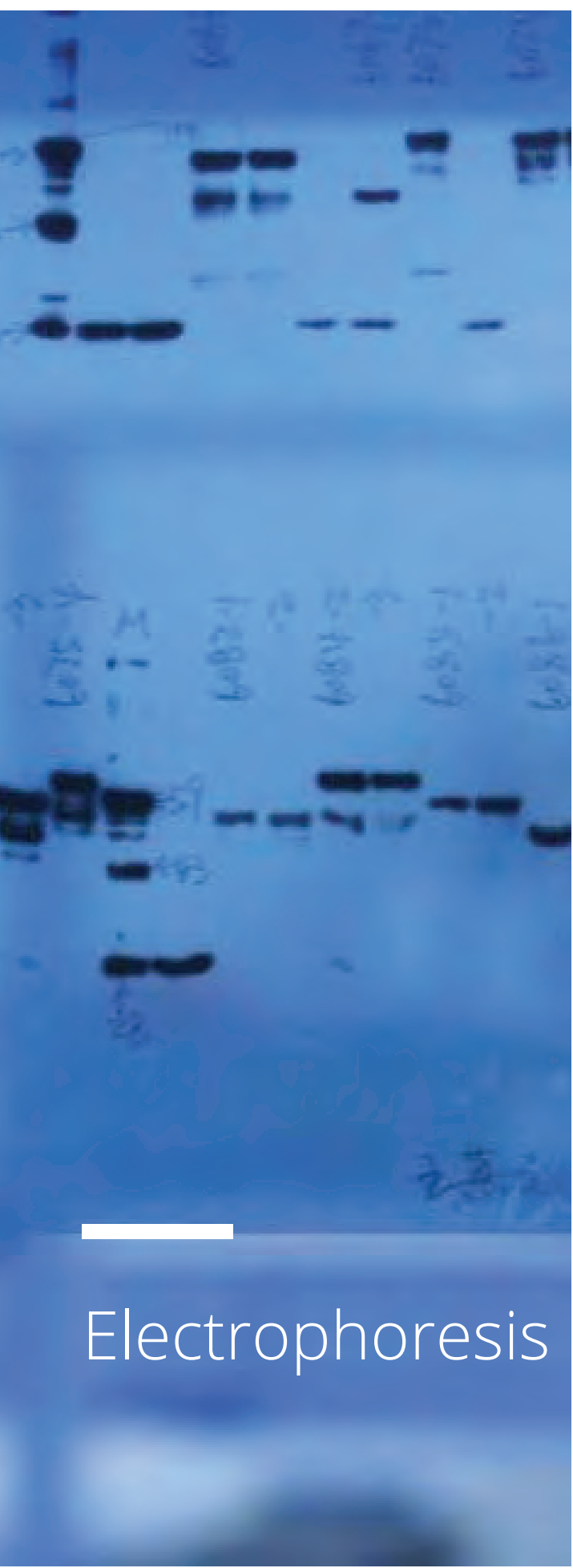
- SIMPLE, AUTOMATED SOLUTION
- NO EXTERNAL POWER SOURCE
- SUPERIOR REPRODUCIBILITY
- BETTER ANTIGEN ANTIBODY INTERACTION

### *Applications*

- AUTOMATED WESTERN BLOT SET-UP

### *Specifications*

- 2.5 HOUR TO DETECTION STAGE



## INVITROGEN *iBlot 2 Dry Blotting System*

The iBlot® 2 Gel Transfer Device is our second-generation dry transfer device, providing the same speed and convenience as the original iBlot® device, but with many new features. The iBlot® 2 Gel Transfer Device performs western blotting transfer simply, efficiently, and reliably, within seven minutes and without the need for liquid buffers.

### Unique Features

- COMPLETE PROTEIN TRANSFER IN 7 MINUTES OR LESS
- HIGH DETECTION SENSITIVITY AND EVEN TRANSFER
- INCREASED BLOTTING RELIABILITY AND REPRODUCIBILITY
- FLEXIBLE GEL SIZE FORMATS AND MEMBRANE TYPES
- A SIMPLE, USER-FRIENDLY SYSTEM
- OPTIONS TO CREATE NEW CUSTOM PROGRAMS
- BUILT-IN TUTORIAL AND APPLICATION NOTES

### Applications

BUFFER ION RESERVOIRS ARE INCORPORATED INTO THE GEL MATRIX (TRANSFER STACKS) INSTEAD OF BUFFER TANKS OR SOAKED PAPERS. THE HIGH DENSITY OF IONS IN THE GEL MATRIX ENABLES RAPID PROTEIN TRANSFER. DURING BLOTTING, THE COPPER ANODE DOES NOT GENERATE OXYGEN GAS AS A RESULT OF WATER ELECTROLYSIS, REDUCING BLOT DISTORTION (CONVENTIONAL PROTEIN TRANSFER TECHNIQUES, INCLUDING WET, SEMI-WET, AND SEMI-DRY, USE INERT ELECTRODES THAT GENERATE OXYGEN). WITH THE IBLOT® 2 DRY BLOTTING SYSTEM, TRANSFER TIME IS REDUCED BY THE SHORTENED DISTANCE BETWEEN ELECTRODES, HIGH FIELD STRENGTH, AND HIGH CURRENT. TRAPPED AIR BUBBLES, OFTEN CREATED DURING THE MANUAL PREPARATION OF THE BLOTTING SANDWICH LAYERS, ARE EASY TO AVOID DUE TO OUR UNIQUE DE-BUBBLING DESIGN THAT PROMOTES EVEN AND COMPLETE TRANSFER.

# Electrophoresis





# INVITROGEN

## *XCell SureLock Gel Electrophoresis System*

The XCell4 SureLock™ Midi-Cell allows you to quickly and easily perform simultaneous vertical electrophoresis of 1–4 midi-gels without leaking, resulting in consistent performance. The XCell4 SureLock™ Midi-Cell is built with tough plastic material to boost durability and features a specially designed lid to enhance user safety.

### *Unique Features*

- EASY TO USE
- SIMPLE ASSEMBLY (SEE FIGURE) AND OPERATION FOR THE ULTIMATE IN EASE OF USE. A SINGLE SURELOCK™ ACTUATOR SEALS ALL GELS WHILE ALLOWING FOR ZERO FORCE INSERTION AND EASY POSITIONING OF THE GELS FOR SAMPLE LOADING.
- FLEXIBLE
- RUNS UP TO FOUR NOVEX® MIDI-GELS AT ONCE, WHILE HAVING THE SAME APPROXIMATE FOOTPRINT AS THE CRITERION™ CELL (BIO-RAD), WHICH RUNS A MAXIMUM OF ONLY TWO GELS.
- EFFICIENT
- NO NEED FOR EXTERNAL COOLING ACCESSORIES; REQUIRES 25% LESS RUNNING BUFFER PER GEL THAN THE CRITERION™ CELL (340 ML VS. 460 ML).

### *Applications*

- GEL ELECTROPHORESIS

### *Specifications*

- OPERATING TEMPERATURE IS 4°C TO 40°C



## INVITROGEN *Mini Gel Tank*

The Mini Gel Tank is compatible with a variety of Novex® mini gels, NuPAGE® mini gels, and Bolt® Bis-Tris Plus gels. Each Mini Gel Tank can accommodate up to two gels per run. The unique tank design enables convenient side-by-side gel loading and enhanced viewing during use. Optimized conditions using constant voltage allow for Bolt® Bis-Tris Plus gels to be run in approximately 35 minutes. Run times may vary depending on buffer conditions and power supplies being used.

### *Unique Features*

THE MINI GEL TANK IS VERSATILE AND COMPATIBLE WITH THE SURECAST GEL HANDCAST SYSTEM, NUPAGE, BOLT OR NOVEX MINI GELS. THE UNIQUE TANK DESIGN ENABLES CONVENIENT SIDE-BY-SIDE GEL LOADING AND ENHANCED VIEWING DURING USE.

### *Applications*

- GEL ELECTROPHORESIS

### *Specifications*

- CAPACITY: 2 GELS PER RUN

Electrophoresis

# FLUOROMETER



INVITROGEN  
*QUBIT 4*

## APPLICATIONS

DNA QUANTIFICATION  
RNA QUANTIFICATION  
PROTEIN QUANTIFICATION  
FLUORESCENCE



# INVITROGEN *Qubit 4* *Fluorometer*

The Invitrogen Qubit 4 Fluorometer is the next generation of the popular benchtop fluorometer designed to accurately measure DNA, RNA, and protein quantity. The new Qubit 4 also easily measures RNA integrity and quality. The easy-to-use touch screen menus make it easy to select and run the assays you need, with results displayed in just a few seconds.

## *Unique Features*

- MORE SENSITIVE THAN UV ABSORBANCE-BASED
- ACCURATELY QUANTIFIES DNA, RNA, AND PROTEIN
- FAST, RELIABLE DETECTION OF DEGRADED RNA
- NEW INTEGRATED REAGENT CALCULATOR
- USES AS LITTLE AS 1 ML OF SAMPLE
- WI-FI, USB DRIVE, OR DIRECT CONNECTION

## *Applications*

- DNA QUANTIFICATION
- RNA QUANTIFICATION
- PROTEIN QUANTIFICATION
- FLUORESCENCE

## *Specifications*

- WEIGHT 743 G
- DYNAMIC RANGE 5 ORDERS OF MAGNITUDE
- PROCESSING TIME  $\leq 5$  SECONDS/SAMPLE
- LIGHT SOURCES BLUE LED (MAX  $\sim 470$  NM)
- RED LED (MAX  $\sim 635$  NM)
- EXCITATION FILTERS BLUE 430-495 NM
- RED 600-645 NM
- EMISSION FILTERS GREEN 510-580 NM
- RED 665-720 NM
- WARM-UP TIME  $< 35$  SECONDS
- USB DRIVE 4 GB

# Fluorometer



# CELL COUNTERS



CHEMOMETEC  
*NC-200*

## PROCESSING TIME

<50 seconds

## CELL CONCENTRATION RANGE

$5 \times 10^4$  TO  $5 \times 10^6$  CELLS/ML.



INVITROGEN  
*COUNTLESS II  
FL*

## PROCESSING TIME

10 seconds

## CELL CONCENTRATION RANGE

$1 \times 10^4$  TO  $1 \times 10^7$  cells/mL

A vertical blue-tinted microscopic image of cells, showing several large, rounded cells with prominent nuclei. The image is positioned on the left side of the page, partially overlapping the 'Cell Counter' text.

# Cell Counter

## CHEMOMETEC *NC-200*

The NucleoCounter® NC-200™ is a high precision automated cell counter utilizing state-of-the-art image cytometry. The Via1-Cassette™ used for automated staining and sample handling is volume calibrated to ensure high precision and reproducibility. With user adaptable protocols and specialized assays for aggregated cells and cells on microcarriers, the Automated Cell Counter NucleoCounter® NC-200™ provides an all-in-one solution for cell counting and cell viability determinations.

### *Unique Features*

- AUTOMATED CELL COUNTING
- GMP AND 21 CFR PART 11 READY
- NO CALIBRATION, NO MAINTENANCE
- ELIMINATES HUMAN ERRORS
- UNLIMITED SOFTWARE LICENSES

### *Applications*

- PRECISE CELL COUNTING FOR:
- AGGREGATED CELLS
- CAR-T CELLS
- ADIPOSE DERIVED STEM CELLS
- CELLS ON MICROCARRIERS

### *Specifications*

- MEASUREMENT VOLUME 1.4 ML IN CHAMBER
- ANALYSIS TIME 50 SECONDS (ONE STEP)
- OPTIMAL RANGE  $5 \times 10^4$  TO  $5 \times 10^6$  CELLS/ML.



## INVITROGEN *Countess II FL*

The new Countess™ II FL Automated Cell Counter is a benchtop assay platform equipped with state-of-the-art optics, full autofocus, and image analysis software for rapid assessment of cells in suspension. With three-channel flexibility—brightfield and two optional fluorescence channels—researchers can count cells, monitor fluorescent protein expression, evaluate apoptosis, and measure cell viability.

### *Unique Features*

- ACCURATE—ELIMINATE THE SUBJECTIVITY OF MANUAL CELL COUNTING AND USER-TO-USER VARIABILITY
- FLEXIBLE—ACCEPT UP TO TWO EVOS® LIGHT CUBES THAT ARE USER-SELECTABLE FROM OVER TWENTY FLUORESCENCE CHANNELS
- FAST—TOTAL CELL COUNT, REPORTS VIABILITY, AND MEASURES AVERAGE CELL SIZE
- CONVENIENT—NO CLEANING OR ROUTINE MAINTENANCE

### *Applications*

- CELL COUNTING
- VIABILITY ANALYSIS

### *Specifications*

- CELL SIZE: 4-60  $\mu\text{M}$
- CONCENTRATION:  $1 \times 10^4$ - $1 \times 10^7$  CELLS/ML
- DETECTION METHOD: BRIGHTFIELD AND FL
- FIELD: 2.15 MM X 1.62 MM (3.48 MM<sup>2</sup>)

Cell Counter

# TRANSFECTION



## INVITROGEN *NEON* *TRANSFECTION* *SYSTEM*

### COMPATIBLE CELLS

ESTABLISHED CELL LINES  
HARD-TO-TRANSFECT CELLS  
PRIMARY CELLS  
STEM CELLS





# INVITROGEN *Neon Transfection System*

The Neon Transfection System offers an innovative electroporation transfection method that utilizes a proprietary biologically compatible pipette tip chamber to generate a more uniform electric field for a significant increase in transfection efficiency and cell viability.

## *Unique Features*

- EFFICIENCY—UP TO 90% TRANSFECTION
- FLEXIBILITY—OPEN SYSTEM
- SIMPLICITY—SINGLE REAGENT KIT FOR ALL CELL TYPES.
- VERSATILITY—DELIVER DNA, RNA AND PROTEIN

## *Applications*

- TRANSFECTION OF:
- ESTABLISHED CELL LINES
- HARD-TO-TRANSFECT CELLS
- PRIMARY CELLS
- STEM CELLS

## *Specifications*

- REACTION TIME: 1 SEC
- SAMPLE LOADING VOLUME: DEPENDS ON KIT USED
- SAMPLE TYPE: PLASMID DNA, SYNTHETIC SIRNA
- SERUM COMPATIBLE: YES
- SHIPPING CONDITION: ROOM TEMPERATURE
- STARTING MATERIAL (CELL #):  $2 \times 10^4$  -  $6 \times 10^8$  CELLS

Transfection

# VACUUM



## THERMO SCIENTIFIC *SPEEDVAC* *SPD210*

### APPLICATIONS

SOLVENT EXTRACTION  
GENOMICS  
DRUG DISCOVERY  
PROTEOMICS  
CHROMATOGRAPHY

# THERMO SCIENTIFIC *SpeedVac SPD210*

High capacity modular systems can accommodate a large number of samples in a wide variety of formats. These systems offer the flexibility of working with 26 different rotors, including rotor blocks, to fit a variety of sample formats such as microcentrifuge tubes, vials, microwell plates and flasks for your application needs.

## *Unique Features*

THESE SYSTEMS OFFER THE FLEXIBILITY OF WORKING WITH 26 DIFFERENT ROTORS, INCLUDING ROTOR BLOCKS, TO FIT A VARIETY OF SAMPLE FORMATS SUCH AS MICROCENTRIFUGE TUBES, VIALS, MICROWELL PLATES AND FLASKS FOR YOUR APPLICATION NEEDS.

## *Applications*

- SOLVENT EXTRACTION
- GENOMICS
- DRUG DISCOVERY
- PROTEOMICS,
- CHROMATOGRAPHY

## *Specifications*

- CAPACITY: 200 X 1.5ML; 8 FLASKS; 8 DEEP-WELL PLATES
- COMPONENTS: OIL FREE PUMP, -50°C COLD TRAP



Vacuum

# STERILIZER



W A R D ' S  
*BACTISTERILIZER*



P H C  
*MLS  
AUTOCLAVE*

**MAXIMUM TEMPERATURE**

815°C

**STERILIZATION TIME**

5 to 7 seconds

**MAXIMUM TEMPERATURE**


135°C

**STERILIZATION TIME**

1 min to 5 hours



# WARD'S *Infrared Microsterilizer*



The Ward's Infrared Micro-Sterilizer has an asbestos-free core element that uses infrared heating to produce 815°C (1500°F). It completely sterilizes microorganisms in 5-7 seconds. The Ward's Infrared Micro-Sterilizer uses well-proven technology to provide instant sterilization of platinum inoculating loops, needles, glass tubes/pipette mouths and various metal & borosilicate glass instruments

## *Unique Features*

- COMPLETE STERILIZATION IN 5 TO 7 SECONDS
- SAFE, CONVENIENT AND NO SPATTER
- IDEAL FOR PLATINUM LOOPS, NEEDLES AND TUBE MOUTHS
- MAXIMUM TEMPERATURE 815°C / 1500°F

## *Applications*

- STERILIZATION

## *Specifications*

- COMPLETE STERILIZATION IN 5 TO 7 SECONDS
- 115 V
- MAXIMUM TEMPERATURE 815°C / 1500°F

# PHC

## *MLS Autoclave*

A lab sterilizer is essential to good laboratory practice, particularly in biotechnology, pharmaceutical and clinical laboratories. Of all sterilization methods, high pressure steam (autoclave) is the most widely used because of its efficacy, speed and reliability. The PHCbi MLS Series portable top-loading autoclave provides a safe, reliable high-pressure steam sterilizing environment within a self-contained unit that is easy to use. These reliable, energy saving autoclaves are ideal for a wide range of applications.

### *Unique Features*

- ERGONOMIC DESIGN - PORTABLE AND FREESTANDING
- MICROPROCESSOR CONTROL
- PROGRAMMABLE

### *Applications*

- STERILIZATION

### *Specifications*

- EFFECTIVE CAPACITY 2.65 CU.FT. (75 L)
- STERILIZATION TEMPERATURE RANGE 115°C - 135°C
- CULTURE MEDIUM MELTING TEMPERATURE 60°C - 114°C
- KEEP WARM TEMPERATURE RANGE 60°C TO 114°C
- PRESSURE GAUGE RANGE 0.1 - 0.4 MPA
- MAX TEMPERATURE 135°C
- PROGRAM TIMER 1 MIN TO 5 HOURS/ KEEP WARM - 72°C
- STERILIZATION TIMER 1 MINUTE TO 5 HOURS
- MELTING TIMER RANGE 1 MINUTE TO 5 HOURS



Sterilizer



# REFRIGERATORS/FREEZERS



FISHERBRAND  
*ISOTEMP  
UNDER-  
COUNTER  
FRIDGE*

THERMO  
SCIENTIFIC  
*ISOTEMP  
CHROM-  
ATOGRAPHY  
FRIDGE*

THERMO  
SCIENTIFIC  
*TSX SERIES  
ULTRA-LOW  
FREEZER*

THERMO  
SCIENTIFIC  
*FORMA  
PHARMACY  
FRIDGE*

THERMO  
SCIENTIFIC  
*REVCO FMS  
FRIDGE*

EPPENDORF  
*CRYOCUBE  
F740*

PHC  
*PR SERIES  
UNDER-  
COUNTER  
FRIDGE*

THERMO  
SCIENTIFIC  
*LOCATOR 6  
PLUS*

## TEMPERATURE RANGE

-24 TO 12°C

2 TO 10°C

-90 TO -70°C

1 TO 8°C

1 TO 8°C

-86 TO -50°C

1 TO 14°C

-180°C



# FISHERBRAND

## *Isotemp*

## *Undercounter*

## *Fridge*

For safe, reliable storage of non-critical products.  
Convenient storage in small spaces

### *Unique Features*

- MANUAL DEFROST
- R-134A CFC-FREE REFRIGERANT
- HYDRAULIC THERMOSTAT
- BAKED-ON, ACRYLIC ENAMEL EXTERIOR
- EASY-TO-CLEAN FORMED INTERIOR
- SOLID DOOR IS MOUNTED TO OPEN FROM LEFT

### *Applications*

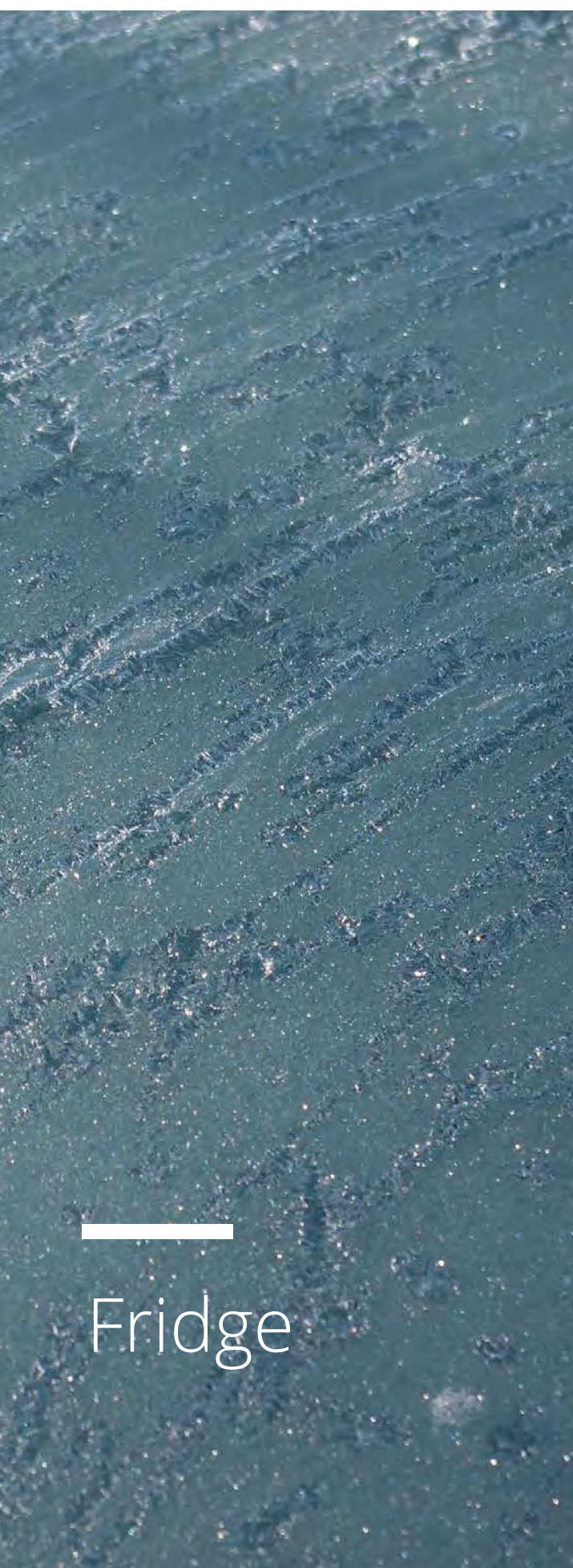
- REFRIGERATION (UNDERCOUNTER)

### *Specifications*

- TEMPERATURE RANGE -12° TO -24° C
- VOLTAGE 115V
- ELECTRICAL REQUIREMENTS 115 V/60 HZ
- WEIGHT (ENGLISH) 84 LB.
- WATTAGE 184W
- AMPERAGE 1.6A
- COMPRESSOR BOTTOM MOUNTED
- INSULATION POLYURETHANE FOAM
- REFRIGERANT R134A, 100% CFC FREE

Fridge





# THERMO SCIENTIFIC *Isotemp* *Chromatography* *Fridge*

Ideal for the demanding requirements of daily use in research, clinical, and industrial laboratories storing non-critical products such as reagents, media, and proteins. Fisherbrand™ Isotemp™ Chromatography Refrigerators for General Purpose Use are designed with your needs in mind.

## *Unique Features*

- HYDROCARBON SAFETY SENSOR
- WHISPER-QUIET OPERATION
- ENERGY STAR CERTIFIED
- TEMPERATURE, DOOR AJAR, AND POWER FAILURE ALARMS
- GREEN, NATURAL REFRIGERANTS
- ADAPTIVE DEFROST
- GLASS (DOUBLE PANE)
- DIGITAL CONTROLLER
- REAR ACCESS PORT
- REMOTE ALARM CONTACTS
- KEYED DOOR LOCK(S)
- LED INTERIOR LIGHTING
- LOW HEAT OUTPUT

## *Applications*

- REFRIGERATION

## *Specifications*

- ACCESS SECURITY KEY LOCK
- CONTROL MICROPROCESSOR
- TEMPERATURE RANGE 2°C TO 10°C
- ELECTRICAL REQUIREMENTS 115 V/60 HZ
- REFRIGERANT R290



Fridge





# THERMO SCIENTIFIC *TSX Series Ultra- Low Freezer*

Thermo Scientific™ TSX Series ultra-low freezers are designed to meet the highest sustainability, temperature management and reliability standards for -80°C and -70°C storage.

## *Unique Features*

- WIRELESS MONITORING
- CRYOBOXES AND RACKS INCLUDED
- LED SCREEN DISPLAY
- CLOUD CAPABILITY

## *Applications*

- FREEZER
- CRYOPRESERVATION

## *Specifications*

- SMART VIEW COMPATIBILITY SMART-VUE COMPATIBLE
- DEFROST MANUAL
- DEPTH (METRIC) EXTERIOR 95.5CM
- TEMPERATURE -80 DEGREES CELCIUS

Freezer





# REVCO

## *Forma Pharmacy Fridge*

Store and retrieve pharmacy products with ease, utilizing Thermo Scientific™ Forma™ Pharmacy Refrigerators. Developed for stable temperature control over a range of 1° to 8°C, refrigerators feature microprocessor control, positive airflow systems, industrial-quality cabinet construction, extra-strength refrigeration compressors and full-extension stainless-steel roll-out drawers.

### *Unique Features*

- TEMPERATURE ADJUSTABLE FROM 1° TO 8°C
- ICON-BASED CONTROLS, DISPLAYS AND GRAPHICS
- SECURITY SETPOINT KEY-OPERATED
- AUDIBLE/VISUAL WARNINGS
- BATTERY BACKUP FOR CONTROL
- ALARM SILENCE AND RINGBACK

### *Applications*

- REFRIGERATION

### *Specifications*

- DRAWERS 5
- REFRIGERANT CFC-FREE
- TEMPERATURE CONTROL MICROPROCESSOR
- DOOR STYLE GLASS
- TEMPERATURE RANGE 1° TO 8°C





# REVCO

## *FMS High-Performance Fridge*

Protect flammable materials, solvents and intermediates using high-performance Thermo Scientific™ Forma™ FMS High-Performance Lab Refrigerators. Designed to meet stringent U.S. Pharmacopeia standards for drug storage and NFPA safety provisions for storing flammable liquids.† These refrigerators are designed to maintain a safe environment while keeping valuable samples within a tight temperature range. Each is listed by UL as a special purpose refrigerator intended for flammable material storage in accordance with NFPA 45, 70 and 99.† 45, 70 and 99.†

### *Unique Features*

- EASY TO USE INTUITIVE DIGITAL DISPLAY F
- LOCKABLE DOORS, AUDIO AND VISUAL ALARMS
- CONVENIENT ACCESS PORT AND CASTERS
- OUTSTANDING CONSTRUCTION
- IGNITION-FREE INTERIOR CABINET DESIGN
- MEETS SAFETY STANDARDS
- MANUAL DEFROST

### *Applications*

- REFRIGERATION

### *Specifications*

- CAPACITY (METRIC) 651L
- TEMPERATURE RANGE 1° TO 8°C
- DOORS 1

# Fridge





# EPPENDORF

## *CryoCube F740 Series*

The Eppendorf CryoCube® F740 series is the latest addition to the Eppendorf Freezer family. Combining the high-quality tradition of our previous freezers with an increased capacity, the CryoCube F740 is designed to store more of your samples securely while maintaining optimal energy usage. The integration of the PhysioCare Concept® during development means that the CryoCube F740 is easier and more comfortable to use, supports an ergonomic workspace, and enables an optimal workflow in the lab

### *Unique Features*

- TRADITIONALLY FOAMED POLYURETHANE INSULATION
- QUICK PULL-DOWN AND RECOVERY TIMES
- FLUSH MOUNTED CONTROL PANEL AND ALARM STATUS
- INNER DOORS ARE INSULATED AND SEALED
- SPECIAL LOW-TEMPERATURE OUTER DOOR SEALS
- FULL STAINLESS STEEL INTERIOR FOR EASY CLEANING

### *Applications*

- FREEZING
- CRYOPRESERVATION

### *Specifications*

- TEMPERATURE RANGE -50 °C TO -86 °C
- CAPACITY 740 L
- MAX. RACKS PER FREEZER 30



Fridge

PHC

## *PR Series Undercounter Refrigerator*

The PR Series Undercounter Laboratory Refrigerators from PHC (formerly Panasonic Healthcare) are ideal for the demanding standards of laboratory applications that need a precise and uniform temperature environment. The PR-L5111W-PA features state-of-the-art compressor technology and an adjustable thermostat for approximate temperature performance range of +1°C to +14°C. This 4.9 cubic foot refrigerator is optimized with a compact, space-saving design allowing for easy, convenient placement on a countertop or underneath of a counter/bench (see specifications below for clearance requirements). The PR Series Undercounter Refrigerators have all the right features for laboratory applications that need +4°C refrigeration or have free standing applications.

### *Unique Features*

- EASY MAINTENANCE
- TEMPERATURE UNIFORMITY
- SPACE-AVING DESIGN

### *Applications*

- REFRIGERATION

### *Specifications*

- TEMPERATURE RANGE 1°C TO 14°C
- SHELVES 3





# THERMO SCIENTIFIC

## *Locator™ 6 Plus Cryostorage Tank*

Compact design minimizes space requirements while maximizing storage capacity. Suited for both manual and computerized inventory record-keeping methods.

### *Unique Features*

- OUTSTANDING TEMPERATURE UNIFORMITY
- AUDIBLE ALARM SOUNDS W
- ADVANCED VACUUM INSULATION
- SECURE LOCKING HASP PREVENTS UNAUTHORIZED ENTRY

### *Applications*

- CRYOPRESERVATION

### *Specifications*

- CAPACITY (METRIC) 121L
- TEMPERATURE -180°C

Cryo Storage

# FREEZE DRYER



LABCONCO  
*FREEZONE*  
*FREEZE*  
*DRYER*

**MAXIMUM TEMPERATURE**

-50°C





# LABCONCO

## *FreeZone 2.5L*

## *Freeze Dryer*

FreeZone 2.5 Liter Benchtop Freeze Dryers are designed for lyophilizing light sample loads. The compact design is ideal for labs with limited floor space. Collectors are available to -50° C or -84° C.

### *Unique Features*

- STAY CLOSE TO YOUR SAMPLES AS LYO-WORKS™
- CONSISTENT, HIGH QUALITY RESULTS
- CHALLENGING SAMPLES ARE EASY
- END-ZONE™ END POINT DETECTION

### *Applications*

- FREEZE DRY SAMPLES

### *Specifications*

- CAPACITY (METRIC) 2.5L
- TEMPERATURE -50°C

Freeze Dryer

# INCUBATORS



**P H C**

*CELL-IQ SERIES  
CO2 INCUBATOR*



**T H E R M O  
S C I E N T I F I C**

*MAXQ 4450  
TABLETOP  
INCUBATOR*



**N O R - L A K E  
S C I E N T I F I C  
UNDERCOUNTER  
BOD  
REFRIGERATED  
INCUBATOR**

**TEMPERATURE RANGE    TEMPERATURE RANGE    TEMPERATURE RANGE**

**5 TO 50°C**

**20 TO 80°C**

**5 TO 50°C**





Incubator

PHC

## *Cell-IQ Series CO2 Incubator*

Enhance the production yield of your cell culture experiments with PHCbi's large capacity CO2 incubator. Part of the Cell-IQ CO2 series, the MCO-230AICUVL-PA is the ideal high throughput cell culture incubator for culturing or protocols that may require the use of an experimental apparatus. The MCO-230AICUVL-PA Cell-IQ™ Series 8.1 cu.ft. CO2 Incubator for Cell Culture contains the patented Direct Heat and Air Jacket system to provide precise temperature and CO2 levels, time-saving decontamination, and an intuitive control panel interface for easy programming.

### *Unique Features*

- RAPID CO2 RECOVERY WITH IR2 SENSOR
- TIME SAVING DECONTAMINATION
- CONTAMINATION CONTROL

### *Applications*

- CELL GROWTH

### *Specifications*

- TEMPERATURE CONTROL RANGE +5°C TO 50°C
- TEMPERATURE UNIFORMITY  $\pm 0.25^\circ\text{C}$  (AMBIENT TEMPERATURE: 23°C, SETTING: 37°C, CO2: 5 %)
- CO2 CONTROL RANGE 0% TO 20%
- CO2 CONTROLLER PID CONTROL SYSTEM
- CO2 GAS CONNECTION 0.157 INCH TO 0.36 INCH
- CO2 VARIATION  $\pm 0.15\%$  (AMBIENT TEMPERATURE: 23°C, SETTING: 37°C, CO2: 5%, NO LOAD)



# THERMO SCIENTIFIC *MaxQ 4450* *Tabletop Incubator*

Combine incubated and refrigerated temperatures with a small footprint by using these affordably-priced, orbital shakers, ideal for incubating a small number of vessels.

## *Unique Features*

- CLEAR, SCRATCH-RESISTANT LID A
- CHAMBER HOLDS FOUR 1L FLASKS
- CHOOSE FROM TWO TEMPERATURE RANGES
- MONITOR AND CONTROL CHAMBER TEMPERATURE RANGE
- TRIPLE ECCENTRIC DRIVE HANDLES HEAVY LOADS
- OVERTEMPERATURE SAFETY FEATURE
- INTERLOCK STOPS PLATFORM WHEN LID IS OPENED

## *Applications*

- CELL CULTURE
- SOLUBILITY STUDIES
- EXTRACTION PROCEDURES
- PLASMID PURIFICATION
- GENERAL MIXING
- BACTERIAL SUSPENSIONS
- STAINING AND DESTAINING
- WASHING PROCEDURES
- HYBRIDIZATIONS
- PROTEIN EXPRESSION IN BACTERIA

## *Specifications*

- CONTINUOUS AND TIMED 0.1 HOUR UP TO 999 HOURS
- TEMPERATURE 20° TO 80°C
- VARIABLE SPEED CONTROL FROM 15 TO 500RPM

Incubator



# NOR-LAKE SCIENTIFIC

## *Undercounter BOD Refrigerated Incubator*

Refrigerated Incubators, often called B.O.D Incubators or Low Temperature Incubators, are commonly used for applications such as B.O.D. Determinations, among many others.

### *Unique Features*

- 2 LEVELS OF USER PASSWORD PROTECTION (SET POINTS AND PARAMETERS)
- 4 DIGIT LED DISPLAY WITH 8 BUTTON INTERFACE
- CONTINUOUS PRODUCT TEMPERATURE HI/LO ALARMS, AUDIBLE AND VISUAL
- OPERATING TEMPERATURE: +5°C TO +50°C
- PROGRAMMABLE LOGIC MICROPROCESSOR
- STORE UP TO (71) 300 ML BOD BOTTLES

### *Applications*

- PLANT CELL GROWTH
- FERMENTATION STUDIES
- BACTERIAL CULTURING
- MYCOLOGY STUDIES.

### *Specifications*

- OPERATING TEMPERATURE: +5°C TO +50°C
- PROGRAMMABLE LOGIC MICROPROCESSOR
- 4 DIGIT LED DISPLAY WITH 8 BUTTON INTERFACE
- CONTINUOUS PRODUCT TEMPERATURE HI/LO ALARMS, AUDIBLE AND VISUAL
- 2 LEVELS OF USER PASSWORD PROTECTION (SET POINTS AND PARAMETERS)
- INTEGRATED HI/LO ALARM TESTS
- PROPORTIONAL CONTROL AND CAPACITY OUTPUT
- AUTO DEFROST
- KEY LOCK DOOR (2 KEYS)



# Incubator

# SYRINGE PUMP



## F I S H E R B R A N D *S I N G L E S Y R I N G E P U M P*

### FLOW RATE

519mL/Hour

### FLOW RATE ACCURACY

$\pm < 1\%$

### CAPACITY

10 $\mu$ L to 60mL



# Syringe Pump

## FISHERBRAND

### *Single Syringe Pump*

Easy-to-use, economical pump combines precise flow with exceptional durability

#### *Unique Features*

- DISPENSING VOLUME: 10ML TO 60ML
- WIDE FLOW RANGE UP TO 519ML/HOUR
- HIGH-VISIBILITY BACKLIT LCD
- AUTO SHUTOFF VOLUME DISPENSE MODE
- FAST SETUP WITH BUILT-IN SYRINGE SIZE TABLE
- RAPID ADJUSTMENTS; FAST FORWARD/REVERSE
- STALL INDICATOR AND POWER FAILURE INDICATOR
- QUICK-RELEASE DRIVE NUT
- GUIDE ROD CLAMP PREVENTS SYRINGE DAMAGE
- DURABLE HOUSING WITH WELDED SEAMS

#### *Applications*

- CALIBRATING,
- DILUTING,
- DISPENSING,
- DOSING,
- EMULSIFYING,
- FLUID TRANSFER,
- INFUSIONS

#### *Specifications*

- DISPLAY TYPE BACKLIT LCD
- NUMBER OF CHANNELS 1.0
- FLOW RATE 519ML/HOUR
- LINEAR FORCE (METRIC) 9KG
- REPRODUCIBILITY  $\pm 0.1\%$
- CAPACITY (METRIC) 10ML TO 60ML

# WATER SYSTEMS



MILLIPORE  
*MilliQ 7000*

## FLOW RATE

2 L/min

## CAPACITY

up to 50 mL





# Millipore

## *MilliQ 7000*

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The Milli-Q® IQ 7003/7005/7010/7015 system is a fully-integrated and modern water purification system delivering both superior quality ultrapure (Type 1) and pure (Type 2) water direct from a tap water source. It integrates Elix® electrodeionization (EDI) technology, intuitive touchscreens, Q-POD® ultrapure and E-POD® pure dispensers, and mercury-free UV lamps. The system provides an ergonomic and compact design to improve lab productivity, reduce waste and accelerate research.

### *Unique Features*

- Stores up to 50 L of water
- Integrated system with building water supply

### *Applications*

High Water Purity

### *Specifications*

- Flow Rate: 2L/min
- Quality: RNase, DNase, and Protease Free

# Water Systems