

Pioneer Molecular Biologist – Discovered the DNA double Helix

(1920 – 1958)



Dear School Administrators and Teachers,

Since 1978, **YOGECO Corporation** has been importing educational and scientific products from over 14 countries. These products include laboratory equipments, teaching aids, audio-visuals, multimedia equipments, specialized computers, **interactive whiteboards** and **LED displays**... **YOGECO Corporation** is also a leader in manufacturing furniture and benches for laboratories, classrooms as well as special blackboards.

What differentiates **YOGECO Corporation** is its high stocking level which assures quick, if not prompt deliveries; and in its aim to assure a long-term cooperation with its clients, **YOGECO Corporation** provides a distinguished after sales services and maintenance by a very specialized team of technicians.

Kindly do not hesitate to contact us for any requirement and we assure you that we will do our best to satisfy you with our services, our prices and the quality of our products as well.

Sincerely yours,



YOUSSEF F. GEBRAN
General Manager

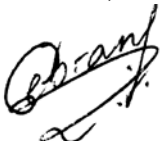
Chers Directeurs et Professeurs,

Depuis 1978, la société **YOGECO** est au service de l'éducation comme importateur de produits scientifiques et éducatifs de plus de 14 pays différents, notamment des équipements de laboratoire, de tout genre de matériel d'enseignement et d'audiovisuels, de multimédia durcis, de **tableaux** et **affichage LED interactifs** et de bien d'autres. Aussi, la société **YOGECO** a gagné une renommée remarquable dans la fabrication de mobilier scolaire, de paillasse de laboratoire ainsi que des tableaux muraux.

La quantité considérable de matériels disponibles en stock nous permet une livraison presque immédiate de tous les besoins de nos clients avec un service après-vente efficace et rapide dirigé par un groupe de techniciens hautement qualifiés.

Restant à votre disposition pour satisfaire tous vos besoins en vous offrant les meilleurs services avec des rapports qualité prix uniques,

Sincèrement,



YOUSSEF F. GEBRAN
Directeur Général

Vantage Vue®: Get serious about weather

Vantage Vue provides accurate, reliable weather monitoring in a self-contained, easy-to-install system. Sleek but tough, Vantage Vue gives you all the weather data you need:

- Inside & Outside Temperature
- Inside & Outside Humidity
- Barometric Pressure
- Wind Speed & Direction
- Dew Point
- Rainfall

Your outdoor Sensor Suite sets up in minutes and transmits data wirelessly to your console anywhere in your home, school, or business. In addition to displaying current weather conditions and trends, Vantage Vue also boasts the innovative Weather Center button that displays weather variables over the last 25 days.

Features:

- Up to 10x faster updates than the competition. (Every 2.5 seconds.)
- Wireless transmission 3x farther than the competition. (1,000 ft./300 m from station to console.)
- Easy-to-read backlit screen.
- Glow-in-the-dark keypad.

1. TIME & DATE

View the current time and date, or time of sunrise/sunset.

2. MOON PHASE

Track the eight phases of the moon.

3. FORECAST

Icons let you know to expect sun, partly cloudy, clouds, rain, or snow.

4. TEMPERATURE & HUMIDITY

Console updates outside temperature every 10 seconds and inside temperature every minute. In addition, outside humidity updates every 50 seconds and inside humidity every minute.

5. RETRANSMITS

Main console can extend range to additional consoles up to 1,000 ft. (300 m).

6. BAROMETER

Five-position trend arrow shows whether barometric pressure is rising, falling, or stable.

7. VARIABLE DISPLAY OPTIONS

See updated values every 10 seconds for heat index and wind chill to get a better "feel" for the outside environment.

8. RAIN

Console updates rain totals and rain rate every 20 seconds for the last 25 hours, days, and months.

9. "CHANGE IN WEATHER SINCE YESTERDAY" FEATURE

Allows comparisons of temperature and barometric pressure from day to day.

10. WEATHER CENTER

Weather Center provides additional information for each weather variable,

such as daily highs and lows, temperature changes by the hour, and barometric value changes. Also displays astronomical data.

11. USER-FRIENDLY KEYPAD

Domed buttons are easy to feel and press. Glow-in-the-dark keypad buttons give you access to weather information at night. The "DONE" key returns you to the "current" screen from anywhere in the program.

12. GRAPHS

Graphs the last 25 hours, days, or months. View up to 50 graphs for temperature, rain, rain rate, wind, and barometric pressure—all on the console.

13. "THIS TIME YESTERDAY" FEATURE

Data point on the graph indicates the weather during the same time yesterday to help compare and analyze day-to-day weather trends.

14. ALARMS

Set 22 simultaneous, different alarms to warn of dangers such as high winds, freezing temperatures, rain rate, heat index, flood warning, and more.

15. WIND SPEED

See wind speed updates every 2.5 seconds. Displays wind speed in miles per hour, meters per second, kilometers per hour, or knots. Provides the average and high wind speed for 2-minute and 10-minute intervals.



Rugged, accurate, affordable

The fully-integrated, corrosion-proof Sensor Suite is built to take all the weather your location can give—freezing winters, springtime thunderstorms, blistering summer sun, and brisk autumn winds. The small profile Sensor Suite is designed to minimize visual impact in your yard or on your roof.

6250 Vantage Vue
PATENTED



Pair with a data collection product (pages 14-17) to access data anywhere, anytime, and on any device with the WeatherLink Cloud.

1. WIRELESS

Frequency-hopping, spread-spectrum radio ensures consistent transmission up to 1,000 ft. (300 m) line-of-sight from Sensor Suite to console.

2. RAIN COLLECTOR

Self-emptying tipping spoon measures rain in 0.01" increments. Metric version measures in 0,2 mm increments.

3. ANEMOMETER

Wind tunnel-tested to 200 mph (320 km/h).

4. WEATHER-PROOF HOUSING

Corrosion-resistant cover provides durability in extreme conditions. Electronics are potted or overmolded for added moisture shielding.

5. RADIATION SHIELD

Provides excellent protection from solar radiation and other sources of radiated and reflected heat for accurate temperature and humidity readings.

6. TEMPERATURE & RELATIVE HUMIDITY

Provides outside temperature readings from -40° F to 150° F (-40° C to 65° C) and measures relative humidity from 1 to 100%.

7. EASY INSTALLATION

Installs easily and quickly with included mounting hardware kit.

8. WIND DIRECTION

Measures wind direction in compass points or degrees.

9. SOLAR PANEL

Energizes the station during the day. Onboard supercapacitor provides power at night. Lithium battery provides backup when needed.

10. BUILT-IN BUBBLE LEVEL

Allows for more accurate installation and better data collection.



6250 Vantage Vue



« The Sensor Suite mounts on poles from 1.00" to 1.75" (2,54 cm to 4,45 cm) in diameter (pole not included).

Vantage Pro2™: Professional and rugged

Vantage Pro2 and Vantage Pro2 Plus offer the professional weather observer or serious weather enthusiast robust performance with a wide range of options and sensors. You'll get your own local forecast, highs/lows, totals or averages, and graphs for virtually all weather variables over the past 24 days, months, or years—all on the console. Vantage Pro2 uses frequency-hopping, spread-spectrum radio to transmit and receive data up to 1,000 ft. (300 m) line-of-sight. Vantage Pro2 is also an excellent choice for emergency professionals, farmers, educators, researchers, municipalities, and others, to monitor wind and moisture conditions, irrigation requirements, and potential flooding.

Features:

- Up to 10x faster updates than the competition. (Every 2.5 seconds.)
- Wireless transmission 3x farther than the competition. (1,000 ft./300 m from station to console.)
- UV/solar radiation and evapotranspiration updates. (Included with Vantage Pro2 Plus, optional for Vantage Pro2.)
- Large, backlit 3.5" × 6" (9 × 15 cm) LCD screen.

1. CURRENT & HISTORICAL DATA

View current data or highs and lows for up to 24 days, months, or years.

2. FORECAST

Icons let you know what to expect: sun, partly cloudy, rain, or snow. 12-hour icon forecast plus 24–48 hour ticker-tape forecast at the bottom of the console screen.

3. MOON PHASE

Track the eight phases of the moon.

4. TIME & DATE

View the current time and date, time of sunrise/sunset, time and date of highs/lows, and time and date of a graphed data point.

5. WIRELESS

Frequency-hopping, spread-spectrum radio provides three times the transmission distance of the competition, improved reception through multiple walls, and greater immunity from RF interference.

6. RETRANSMITS

Main console can retransmit to additional consoles up to 1,000 ft. (300 m).

7. BAROMETER

Five-position trend arrow shows whether barometric pressure is rising, falling, or steady.

8. FIXED DISPLAY

Fixed display area shows the outside temperature, humidity, and barometric pressure at all times.

9. SOLAR RADIATION

Included on Vantage Pro2 Plus. View solar radiation, highs for the day, month, and year, as well as evapotranspiration and Temp/Hum/Sun/Wind (THSW) index. Set alarms for high readings.

10. UV

Included on Vantage Pro2 Plus. View current UV index, UV index for the day; the daily, monthly, and yearly highs; or change scale to see UV in current, hourly, and daily MEDs. Set alarm to warn of high UV dose/index.

11. VARIABLE DISPLAY OPTIONS

View inside or additional temperatures, humidity, soil moisture, UV index, leaf wetness, wind chill, dew point, and two different heat indices. (Additional sensors or stations may be required.)

12. RAIN

Umbrella icon appears when it is currently raining. View last 24 storm totals with start and end dates. View daily, monthly, or yearly rainfall and rain rate.

13. STATUS INDICATOR

Blinks to let you know that data packets are being received.

14. CONTROL KEYS

Use arrow keys to scroll through data on the graph or view highs and lows over time. "Plus" and "minus" keys simplify data toggling.

15. TICKER-TAPE DISPLAY

Provides expanded forecast details as well as additional information on current conditions. Displays more than 100 different messages.

16. GRAPHS

Graphs the last 24 hours, days, or months of readings; or highs and lows. View over 80 graphs, including additional analyses of temperature, rain, rain rate, wind, and barometric pressure.

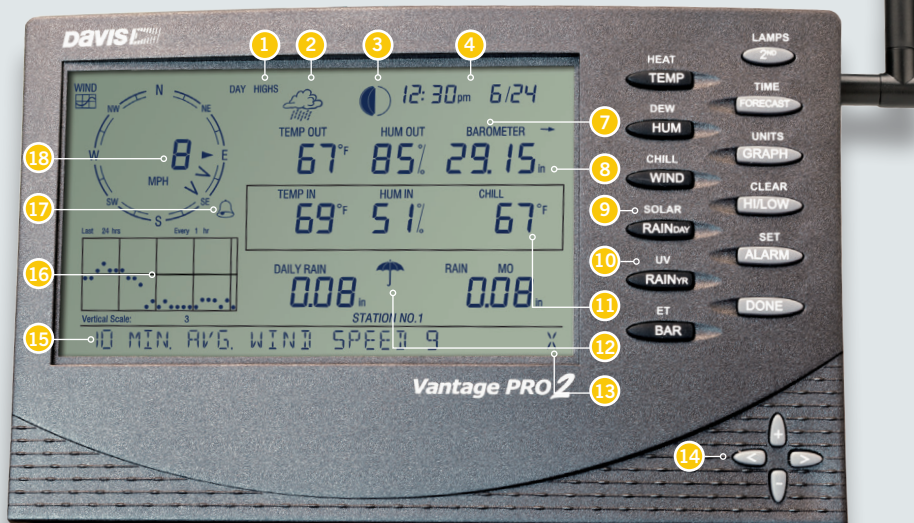
Vertical scale changes depending on what you are graphing.

17. ALARMS

Set more than 70 alarms for multiple functions simultaneously.

18. WIND

Compass rose with 16 points shows current and dominant wind direction. Inside the compass rose, view wind direction to 1° resolution, or view wind speed.



The ultimate in versatility and options

All Vantage Pro2 stations include a console and a versatile Sensor Suite (pictured below) that combines our rain collector, temperature and humidity sensors, and anemometer into one package. You can customize your Vantage Pro2 by adding extra consoles or the Sensor Transmitter options shown on page 31. Vantage Pro2 weather stations are available in both wireless and cabled versions. Vantage Pro2 Plus includes UV and Solar Radiation sensors; however, all stations can be customized with either.

Vantage Pro2 stations
(See pages 10-11 for models) PATENTED



Pair with a data collection product (pages 14-17) to access data anywhere, anytime, and on any device with the WeatherLink Cloud.

1. ANEMOMETER

Includes both wind speed and wind direction sensors. Rugged components stand up to hurricane-force winds, yet are sensitive to the lightest breeze. Wind tunnel-tested to 200 mph (320 km/h).

Anemometer can be installed separately using 40 ft. (12 m) cable (included).

Optional Sensor Transmitter allows you to mount the anemometer even further from the rain collector and the rest of the Sensor Suite.

2. RAIN COLLECTOR

The AeroCone Rain Collector meets the collection area guidelines of the World Meteorological Organization. Reads rainfall amounts in 0.01" increments. Metric versions measure in 0,2 mm increments. Includes improved debris screen and spikes to keep birds from landing.

3. PASSIVE RADIATION SHIELD

The most effective passive shelter available. Protects your Temperature/Humidity Sensor from solar radiation and other sources of radiated and reflected heat. Multi-

plate construction for maximum airflow.

4. 24-HOUR, FAN-ASPIRATED RADIATION SHIELD

Models with 24-Hour Fan-Aspirated Radiation Shields include additional radiation shield plates and a second solar panel to power the motor-driven fan.

5. TEMPERATURE & HUMIDITY SENSORS

Located inside the radiation shield, which protects the sensors from solar radiation and other sources of radiated and reflected heat.

6. SOLAR PANEL

Powers the wireless station during the day and charges the supercapacitor for night operation. Lithium battery provides backup on cloudy days. (Solar panel is not included with cabled version.)

7. WEATHER-RESISTANT SHELTER

Provides protection against the elements for the Sensor Suite's electronic components.

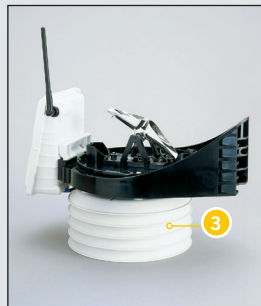
8. SOLAR RADIATION AND UV SENSORS (VANTAGE PRO2 PLUS)

Includes sensors to track solar radiation, evapotranspiration and UV indices. Time

measures are programmable to meet your specific needs. Sensors can be added separately to the Vantage Pro2.

9. OPTIONAL MOUNTING POLE

One of several installation options. For more, including our mounting tripod, see page 12.



6152 Wireless Vantage Pro2. Includes built-in bubble level for accurate installation. The aluminum-plated tipping bucket in our rain collector is self-emptying, corrosion-resistant, and laser-calibrated for exceptional accuracy.

See page 41-42 for installation diagrams.

Pictured: 6163 Wireless Vantage Pro2 Plus with 24-Hour Fan-Aspirated Radiation Shield



KESTREL METER 5500 WEATHER METER

The **Kestrel 5500 Pocket Weather Tracker** is Kestrel's environmental meter. This is a mini weather station in itself. Functionally, you're getting more environmental features with some big improvements to the overall meter:

- Heading (true & magnetic)
- Wind direction
- Crosswind
- Headwind/tailwind
- Altitude
- Pressure trend
- Barometric pressure
- Wet bulb temperature
- Relative humidity in %
- Heat stress index
- Dewpoint
- Density altitude
- Wind chill
- Air, water, and snow temperature °F or °C
- Current, average, and maximum air velocity
- Waterproof (sealed to IP67 standards) and floats
- Time and date
- Easy- to-read backlit display
- Data Logger (automatic and manual)
- Customizable data storage - 12,000 data points
- Measures all of the parameters required for CAMEO / ALOHA Software and PEAC-WMD software by Aristatek to monitor plume dispersion
- Minimum, Maximum and Average values
- Multi-Function 3-line display
- Humidity sensor can be recalibrated in the field with our [Relative Humidity Calibration Kit](#).
- Exterior temperature, humidity, and pressure sensors for fast and accurate readings
- Customize screens to display user-selected measurements
- Graph and recall trends
- User-replaceable impeller
- Flip-top impeller cover allows use of other functions while protecting the impeller
- Data charting
- Upload to a computer (with optional interface) Mac or PC
- Works with Android and iPhone Apps!
- Five languages (English, French, Spanish, German, and Italian)
- Rugged (drop tested to MIL-STD-810G standards), waterproof (sealed to IP67 standards) and floats.
- US Patent Nos. 5,783,753 and 5,939,645 and 6,257,074
- Assembled in the USA

Works with Compatible Apps:

Kestrel LiNK for Windows & Mac

Simple communication to Windows and Mac computers is provided through the optional LiNK .[USB Dongle](#) or [USB Data Transfer Cable](#). Download your data to view, analyze and archive. Enables firmware update of Kestrel 5 series meters.

Kestrel LiNK for iOS & Android

Wirelessly connect with iOS and Android devices. When in range, view real-time measurements, receive on-screen alerts and download your data. Logged data can be viewed, analyzed, archived and shared via e-mail, Facebook and Twitter. Enables firmware update of Kestrel 5 series meters. NOTE: Range up to 100' line of sight – reduced by walls and obstructions.



Data-Logger



9 sensors in ONE device! All-in-One Interface!

User Guide



Sensor List	Input Range	Resolution
① RGB Color	1 to 65535 counts 4 Channels (RGB and C)	1count
② Light	1~188,000 lux	0,1 lux(22bit)
③ UV	0 ~ 11 UV index	0,1 UV index
④ Heart Rate	0 ~ 250 BPM	1 BPM
⑤ Tri-axial Acceleration	±2g, ±4g, ±8g 3 Channels (X/Y/Z)	0,004g (±2g)
⑥ Magnetic Field	-4 to 4 gauss	0,0002 gauss (16 bit)
⑦ Humidity	0 ~ 100%RH	0,01%RH (14bit)
⑧ Temperature	-40℃ ~ 70℃	0,0625℃ (12bit)
⑨ Barometer	300 ~ 1100 hPa	0,01hPa (16bit)

Features

● 9 sensors are embedded

You can use 9 sensors to do several kinds of experiments in Physics, Chemistry, Biology and Earth Science.

● Easy Wireless Connection

You can connect 'Smart Sensor Box' with any devices like PC, Laptop, Smart Phone, Tablet PC, etc. by Bluetooth. Therefore, you can do many kinds of experiment without cable and you manage the device easily.

● Extra 4 more sensors what you want

If you need other sensors, you can connect upto 4 sensors by cable, and then you can do more experiments.

● Provide FREE Data Analysis Program 'Science#' for Windows and Android

You can download 'Science#' for Android from Google Play Store and our website for Windows. It is FREE!





Data-Logger

Smart Learning

Wireless Interface

USB mini port

Connect with USB Charger adaptor for charging and 4~5 hrs. are needed in order to charge fully for a complete dead battery. It is recommended to use the offered USB Charger adaptor as if longer charger time may occur when connected to PC.

Power LED (BLUE)

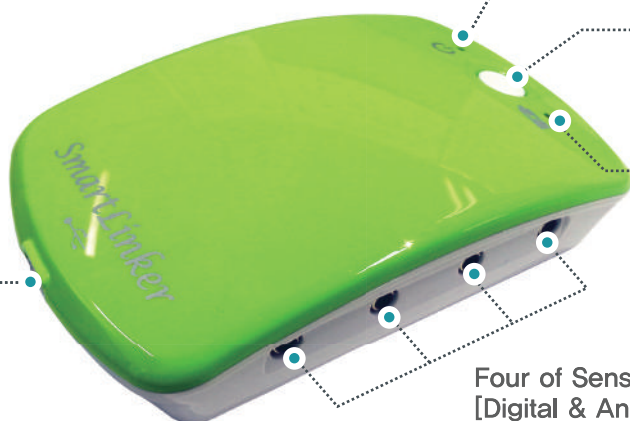
2 times/sec flash in case of Bluetooth pairing preparation mode Flash when measuring sensor data after Bluetooth connection

Power-On: Press longer than 2 sec.
Power-Off: Press longer than 3 sec.
Re-set: Press longer than 10 sec.

Charge LED (RED)

LED turns on when charging
LED turns off when charged fully

Four of Sensor Port [Digital & Analogue]



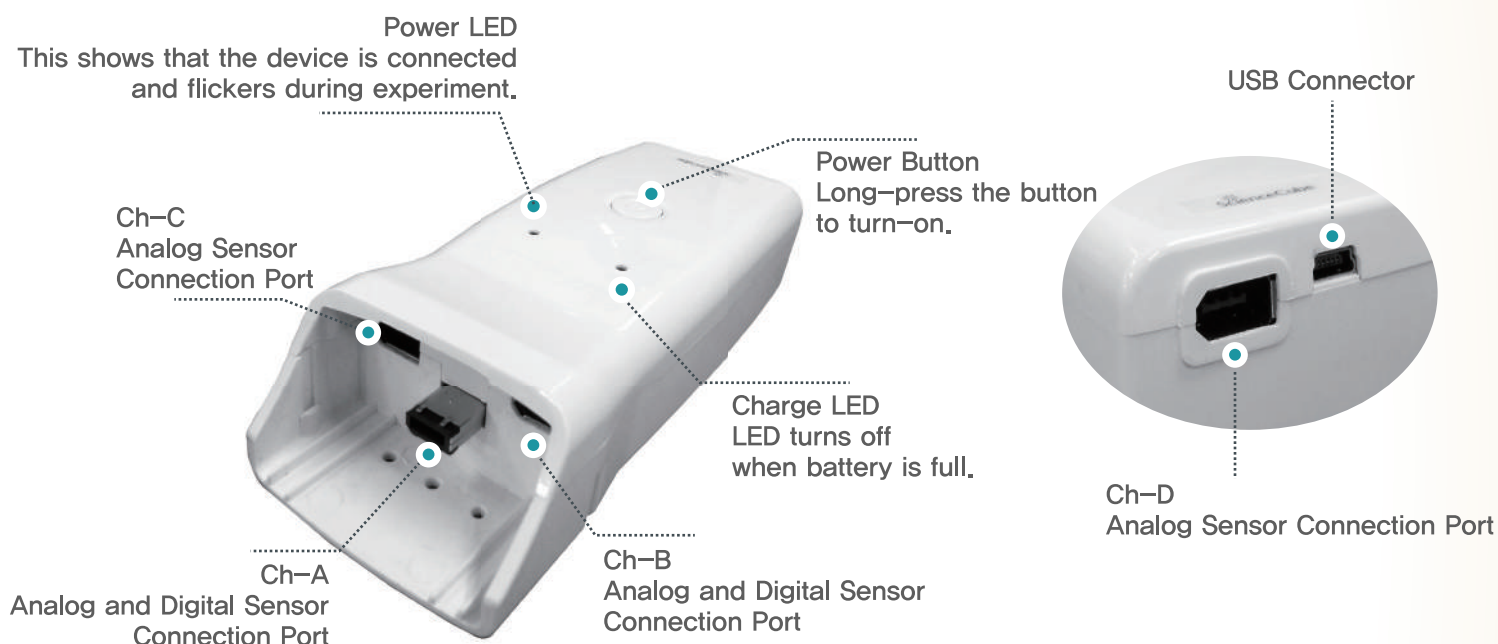
Smart Linker for SMBL

Sensor input port	4 FREE CH (Analog & Digital)
Connections	Wireless (RF 2.4 GHz) / USB 2.0
Sampling Rate	* Wireless - Up to 1,000 Hz (1 kHz) * Wire - Up to 10 kHz
Resolution	12 ~ 16 bit ADC
Battery	Li - polymer 2300mAh
Charging Requirements	USB port (MAX. 500mA @5VDC)



& Smart Education

Wireless Interface



Free Linker for MBL

Sensor input port	4 FREE CH (Analog & Digital)
Connections	Wireless (RF 2.4 GHz) / USB 2.0
Sampling Rate	MAX. 10 kHz / 1CH
Resolution	12 bit ADC
Battery	Li - polymer 1100mAh
Charging Requirements	USB port (MAX. 500mA @5VDC)



WIRELESS TEMPERATURE SENSOR

WL 100T / -40 ~ +125°C



- Separation of the mixture
- Supercooling phenomenon
- Thermal equilibrium
- Metal heat
- The boiling point of pure matter and mixture
- Convection phenomenon
- Intermolecular gravitation
- Thermal reaction
- Radiant equilibrium

WIRELESS GAS PRESSURE SENSOR A

WL 103P / -1,000 ~ +3,000 hPa



- Boyle's law/Charles's law
- Cloud Creation Principles
- Response velocity by surface area
- The decomposition of hydrogen peroxide
- The solubility of a gas according to its temperature
- Response velocity according to the concentration of the acid
- The breathing of a yeast

WIRELESS VOLTAGE SENSOR

WL 101V / -15.0 ~ +15.0V



- Ohm's law (Relationship between voltage and current)
- Battery charge and discharge
- Series/Parallel connection of resistance
- The voltage of a solar cell

WIRELESS CURRENT SENSOR

WL 102C / -3.0 ~ +3.0A



- Ohm's law (Relationship between voltage and current)
- Resistance according to length and width of technical pencil lead
- Creating an Electric Circuit
- Series/Parallel connection of resistance

WIRELESS pH SENSOR

WL 104pH / 0 ~ 14pH



- The neutralization of acid and chlorine
- Acid rain research
- PH measurement of various solutions
- Variation of pH values during chemical reactions
- Measurement of changes in pH through photosynthesis
- Water Quality Research in the river

WIRELESS FORCE SENSOR

WL 105F / -80 ~ +80N



- Hook's Law
- The synthesis of two forces
- The law of inertia
- Tlmpact and momentum
- Frictional force
- Action and reaction
- The principle of a lever
- Weight in the water (Buoyant force)

Display: 0.96" (128*64)

Wireless: BLE 4.2

Battery: Li-Polymer 700mAh

Wired: USB-C



Please download <Science #> from Google Playstore. (FREE)



Experiment List for MBL Sensor

CODE	MBL Sensor	Experiment List
KDS-1001	Stainless Steel Temperature Probe	Boiling Point Freezing Point Temperature Change with Water Level Water Temperature Change by Electric Current Chemical Reaction & Thermal Energy Crystal Observation Experiment
KDS-1002	Thermocouple Probe	Temperature Measurement from various materials (Liquid nitrogen, Dry ice, Soybean oil, etc.) Combustion Flames Measurement, (Flame temperature, etc.) Research of condition change on materials
KDS-1002W	Thermocouple Probe (Wire type)	Experiment on the change of Bunsen burner inner flame temperature by different location Comparative experiment with other flame temperature Measurement on a melting point
KDS-1005	pH Sensor	pH Measurement Acidity Measurement according to liquid Acid Rain
KDS-1007	Magnetic Field Sensor	Fleming Law Lorentz Law Magnetic Field Change by Distance Magnetic Field Change by Surrounding Objects Magnetic Force Measurement Experiment from Solenoid and Helmholtz Coil Magnetic Field Experiment on Growth and Activity of Various Organisms Physical Motion Experiment (Cycle, Velocity Detection) by Strobo Timing
KDS-1008	Relative Humidity Sensor	Increase Production Rate by Relative Humidity Observation with Plants in Sealed Room When to Observe the Optimum Growth Condition in Greenhouse or Terrarium To check Frequent Electrostatic Occurrence Day
KDS-1009	Different Voltage Probe	Ohms Law Brightness Connection of Lights between Voltage and Bulb Voltage Measurement of Volta Battery Coil Experiment Fruit Battery Experiment Electric Energy Series and Parallel Circuit Experiment
KDS-1010	Current Probe	Coil Experiment Ohm's Law Electric Energy Circuit Experiment on both Series and Parallel
KDS-1012	Microphone	Research on a wavy pattern of voice according to a pitch and amplitude Comparison on a wavy pattern of instrument Comparison on a wavy pattern of tuning fork Sound Speed Measurement from reflection of sound in tube Decision on cycle or pitch of sound by analyzing a sound wavy pattern Analysis by high FFT
KDS-1013	Sound Level Meter	Research about Noise block of Street Sound Measurement in Classroom Comparisons from Noise Units
KDS-1014	Accelerometer 5G	Acceleration Measurement in elevator Gravity Acceleration Measurement of the Earth Newton's Second Law Verification Acceleration Measurement effect on cart or certain material Spin Acceleration Measurement on spinning material Acceleration Measurement while bungee jumping
KDS-1016	Barometer	Change of air pressure during a day
KDS-1017	Turbidity Sensor	Turbidity Measurement for the lower and upper reaches of a river Turbidity change for sunny day and after rainy day
KDS-1020	CO ₂ Gas Sensor	Carbon Dioxide Amount Measurement in Classroom Carbon Dioxide Change Observation during Photosynthesis of Plant Carbon Dioxide Change Observation during Cellular Respiration of Plant Carbon Dioxide Amount Measurement by Chemical Reaction with Hydrochloric Acid and Sodium Hydrogen Carbonate Increase rate of Carbon Dioxide Amount by Small Organisms like Insects or Bugs
KDS-1022	Dissolved Oxygen Probe	Comparisons of Dissolved Oxygen Amount on Drinking Waters Reduction Change Measurement of Oxygen Amount in Breathing

CODE	MBL Sensor	Experiment List
KDS-1023	Photogate	Speed & Acceleration Measurement with Straight-line Motion Object Cycle Measurement of Simple Pendulum Motion Calculation of Velocity, Acceleration, and more by measuring time intervals of moving objects among Photogates and connect by Daisy-Chain method with several photogates Gravity Acceleration Measurement from Motion of Free-Fall Movement Observation of Stopped Object Act on Drop Coefficient of Neutralization Titration by utilizing Event Experiment
KDS-1029	Dual Range Force Sensor II	Friction Simple Harmonic Motion Experiment of Force and Impact with collision Centripetal Force Hook's Law Newton's Second Law Force Measurement for pick up objects by using a simple device
KDS-1031	Pt Stainless Steel Temperature Probe	Boiling Points from various materials Freezing Points from various materials Temperature Change with Water Level Water Temperature Change by Electric Current Chemical Reaction & Thermal Energy Crystal Observation Experiment
KDS-1032	Gas Pressure Sensor B	Yeast Breath Transpiration Gas Reaction
KDS-1033	Photometric Light Sensor	Relation between Voltage and Brightness of Light Light Role for Photosynthesis(by different levels of Light Intensity) and Transpiration Weather Research by Sunrise, Sunset Measurement Light Intensity from Distance Polarized Filter Experiment
KDS-1034	Gas Pressure Sensor A	Boyle's Law Charles Law Breath Velocity Measurement of Germinated Bean Pattern Research of Human Breath by Using Breath Analyzer
KDS-1035	Galvanometer	Making Battery (Coin Battery, Fruit Battery) Electrolyte and Ions (Current Flowing Object) Current Reaction (Electricity)
KDS-1037	High Concentration CO ₂ Sensor	Carbon Dioxide Amount Measurement of chemical reaction or combustion experiment Density change of carbon dioxide according to human respiration
KDS-1038	Conductivity probe	Conductivity Measurement on Different Concentrations of Electrolyte Solutions Conductivity Measurement on Surrounding Solutions like Acid Rain, Polluted Water
KDS-1039	ORP Sensor	Comparison on Oxidation-Reduction of Surrounded Environment like in Rainwater, Stream, Lake, etc. Optimal Potential Difference Comparison for the Oxidation-Reduction on Drinking Water Equilibrium Point Finding
KDS-1040	EKG Set	P, Q, R, S, T Wave Research Heartbeat Measurement after Exercise Heartbeat Check on Various Poses Abnormal Diagnosis of Coronary Sickness (Angina, Myocardial Infarction), Arrhythmia, Electrolyte
KDS-1041	Video Capture Camera	Motion Measurement of material and Research on exercise condition
KDS-1042	Motion Sensor II	Pendulum Movement Motion of Free Fall Distance Measurement from Straight-line Motion Object Movement of Cart on Track Simple Harmonic Oscillator on Spring as like Pendulum Motion of Bounce Ball
KDS-1044	Colorimeter II	Beer-lambert law Measurement for concentration of an unknown solution Photosynthetic experiment
KDS-1045	Blood Pressure sensor	Maximum and minimum of blood pressure, and heart beat Measurement Contraction Measurement and relaxation of pressure Relation with heart beat and pressure signal Measure blood pressure change and heart rate change Influence on pressure by the process of digestion compare pressure with smoker and non-smoker
KDS-1046	Heart Rate Monitor	Comparative experiment on heart rate among people. Heart rate Measurement during, after, and before exercise Time Measurement to recover heart rate after exercise Heart rate Measurement after or before eat (Coke or coffee)

CODE	MBL Sensor	Experiment List
KDS-1047	Oxygen Gas Sensor II	Oxygen Amount Measurement in Classroom Oxygen Amount Change Observation during Photosynthesis of Plant Oxygen Reduction Measurement in Small organisms like Insects, Bugs Oxygen Amount occurrence Measurement during Hydrogen Peroxide decomposition by Catalase Oxidation Measurement of metal and Iron
KDS-1048	Accelerometer 25G	Acceleration Measurement from collision Relation Research of Acceleration rate on acceleration measurement, cycle, radius and mass, etc. of horizontal spinning material. Acceleration Measurement of vertical spinning material Acceleration Measurement Research from knee bending and stretching during jump after connecting accelerometer sensor to human body.
KDS-1049	Spirometer	Breathing condition on positions Relations of airflow and capacity of lung Breathe Comparisons according to exercise in different condition
KDS-1051	Stethoscope	Comparisons on heart rate between human and animal. Comparisons on heart rate between stability and exercise condition.
KDS-1053	Balance 1	Mass measurement of Object
KDS-1054	Balance 2	Mass measurement of Object
KDS-1055	Salinity Sensor	Salinity Comparison from Freshwater to Sea Water Salinity Measurement on Salt Water Salinity Comparisons on Drinking Water, Beverages Salinity Comparisons on Surrounded Environment Water like Rain, River, etc.
KDS-1056	Respiration Monitor	Breath Comparisons before and after exercise Breath Comparisons with positions
KDS-1057	Radiation Monitor II	Radiation Measurement Half-life Measurement Intensity Measurement on Blackout Curtain Types
KDS-1059	Magnetic Field Meter	Magnetic field comparisons occurred from various electronics
KDS-1061	Absolute Pressure Sensor Ion Selective Electrode	Measurement of chemical reaction rate Ideal gas equation (Boyle's law, Charle's law) Research of Steam pressure according to temperature Measurement hard water (calcium ion): check amount of mineral on sample of fresh water
KDS-1063	Magnetic Field Sensor II	Magnetic field Comparisons by the number of times for a winded coil N-pole and S-pole finding Magnetic field by current Helmholtz Coil magnetic field Magnetic field Comparisons with distance
KDS-1064	Calcium Ise Probe	Measurement nitrate: sample of sewage or manure
KDS-1065	Ammonium Ise Probe	Measurement salinity and chloride of sea: measurement chloride concentration and salinity of sample of sea.
KDS-1066	Nitrate Ise Probe	Measurement ammonium: when water flows from manure of soil
KDS-1067	Chloride Ise Probe	Measurement milk in calcium: after skim off the film of the top, measure calcium in milk.
KDS-1068	Oscilloscope Probe	
KDS-1069	Heart Rate Monitor(hand-grip type)	Comparative experiment on heart rate among friends Comparison heart rate after or before exercise Comparison heart rate after eat
KDS-1070	Heart Rate Monitor (Ear-clip type)	Comparative experiment on heart rate among friends Comparison heart rate after or before exercise Comparison heart rate after eat
KDS-1071	Rotary Motion Sensor	Pendulum motion Rotary motion Angular speed measurement
KDS-1072	Drop Counter	Acid-base Experiment Electrical conductivity Experiment
KDS-1073	Rotary Motion (Digital Type)	Moment of inertia Torque
KDS-1076	Weather Sensor	Making power curve of Small wind turbine Solar hybrid system efficiency Comparisons from AC generator with wind generator turbine
KDS-1077	UV Sensor	UV Comparison with plastic and glass UV Comparison with sunny and rainy day UV Comparison with sunblock and effect
KDS-1078	Charge Sensor	Charging Measurement by friction, touch, motivation Electricity Measurement of (+) and (-) Faraday experiment

■ Experiment List for SMBL Sensor

Code	SMBL Sensor	Experiment List
C18C	Smart Temperature (length : 180mm)	Boiling Point Freezing Point Temperature Change with Water Level Water Temperature Change by Electric Current Chemical Reaction & Thermal Energy Crystal Observation Experiment
C23C	Light	Relation between Voltage and Brightness of Light Lights Role for both Photosynthesis(by Light Intensity) and Transpiration Weather Research by Detecting Sunrise, Sunset Light Intensity with Distance Polarized Filter Experiment
C38A	Triaxial Acceleration	Newton's Second Law Vikings Movement Parabola Movement Gravitational Acceleration
C39B	Color	Photosynthesis Quantity by Wavelength
C4DA	Air Temperature	Temperature Changes for a Day Temperature Changes of Atmosphere
C77A	Barometer / Temperature / Altitude	Change of Thermocouple metric pressure in a day
Z1DF	Force	Friction Simple Harmonic Motion Experiment for Force and Impact with Collision Centripetal Force Hooke's Law Newton's Second Law Force Measurement for Pick Up Objects by Using a Simple Device
K1EA	Photogate	Speed & Acceleration Measurement with Stright-line Motion Object Cycle Measurement of Simple Pendulum Motion Velocity, acceleration calculation by measuring time intervals of moving objects among photogates by connecting Daisy-Chain method with several photogates Gravity Acceleration Measurement at Motion of Free-Fall Movement Observation of Stopped Object Act on Drop Coefficient of Neutralization Titration by Utilizing Event Experiment
K1FB	Motion	Pendulum Movement Motion of Free Fall Distance Measurement of Straight-line Motion Object Movement of Cart on Track Simple Harmonic Oscillator on Spring as like Pendulum Motion of Bounce Ball
Z13A	Relative Gas Pressure [A]	Boyle's Law Charles Law Breath Velocity Measurement of Germinated Bean
Z14A	Relative Gas Pressure [B]	Yeast Breath Transpiration Gas Reaction
K25A	Sound Spectrum / SPL	Research about Noise block of Street Sound Measurement in Classroom Comparison in Noise Units
K2AA	Stethoscope	Comparison of Heartbeat from Human and Animal Comparison of Heartbeat for Stability and Exercising State
K2BA	Chest Belt Heart Rate	Heart rate Measurement after Exercise Heart rate Measurement by Various Positions
Z28A	EKG	Wave Research about P, Q, R, S, T Hear beat Measurement afterward Exercise Heartbeat Check on Various Poses Diagnosis in the Stranges; Coronary Sickness (Angina, Myocardial Infarction), Arrhythmia, Electrolyte

■ Experiment List for SMBL Sensor

Code	SMBL Sensor	Experiment List
K3BB	Oxygen (O ₂)	Oxygen Amount Measurement in Classroom Oxygen Amount Change Observation during Photosynthesis of Plant Oxygen Reduction Measurement in Small organisms like Insects, Bugs Oxygen Amount Occurrence Measurement during Hydrogen Peroxide decomposition by Catalase
K3CA	Radiation Monitor	Radiation Measurement Half-life Measurement Intensity Measurement on Blackout Curtain Types
K31A	pH	pH Optimal Acidity Measurement on Liquid Types Acidity Rain
K32A	Dissolved Oxygen	Comparison with Dissolved Oxygen Amount on Drinking Waters Reduction Change Measurement of Oxygen Amount in Breathing
K33A	Conductivity	Conductivity Measurement on Different Concentrations of Electrolyte Solutions Conductivity Measurement on Surrounding Solutions like in Acidity Rain, Polluted Water
K34A	ORP	Comparison on Oxidation-Reduction of Surrounded Environment like in Rainwater, Stream, Lake, etc. Potential Difference Optimal Comparison for the Oxidation-Reduction on Drinking Water Equilibrium Point Finding
K36A	Salinity	Salinity Comparison of Freshwater to Sea Water Salinity Measurement of Salt Water Salinity Comparison on Drinking Water, Beverages Salinity Comparison on Surrounded Environment Water like Rain, River, etc.
Z47A	K-Temperature	Surface Flame, Inner Flame Temperature Changes by Height
K50A	Humidity / Temperature / Dew Point	Increase Production Rate by Relative Humidity Observation with Plants in Sealed Room When to Observe the Optimum Growth Condition in Greenhouse or Terrarium To check Frequent Electrostatic Occurrence Day
Z60F	Voltage	Ohms Law Brightness Connection of Lights between Voltage and Bulb Voltage Measurement of Volta Battery Coil Experiment Fruit Battery Experiment Electric Power Circuit Experiment of both Series and Parallel
Z61F	Current	Coil Experiment Ohm's Law Electric Energy Circuit Experiment on both Series and Parallel
Z62F	Galvanometer	Battery Making (Coin Battery, Fruit Battery) Electrolyte and Ions (Make Current Flowing Object) Reaction of Current (Electricity)
Z64B	Magnetic Field [B]	Fleming Law Lorentz Law Magnetic Field Change by Distance Magnetic Field Change by Surrounding Objects Magnetic Force Measurement Experiment from Solenoid and Helmholtz Coil Magnetic Field Experiment on Growth and Activity of Various Organisms Physical Motion Experiment (Cycle, Velocity Detection) by Strabo Timing
K3AA	Carbon Dioxide (CO ₂)	Carbon Dioxide Amount Measurement in Classroom Carbon Dioxide Change Observation during Photosynthesis of Plant Carbon Dioxide Change Observation during Cellular Respiration of Plant Carbon Dioxide Amount Measurement by Chemical Reaction with Hydrochloric Acid and Sodium Hydrogen Carbonate Increase rate of Carbon Dioxide Amount by Small Organisms like Insects or Bugs
K55A	Weather / Anemometer / Dew Point	Weather Change for a Day Wind Strengths between Buildings Wind Power Generator
Z65F	Oscilloscope	Voltage of Solar battery Capacitor
C42A	Smart GPS	Location Information of Experiment Place Moving Route of Bicycle



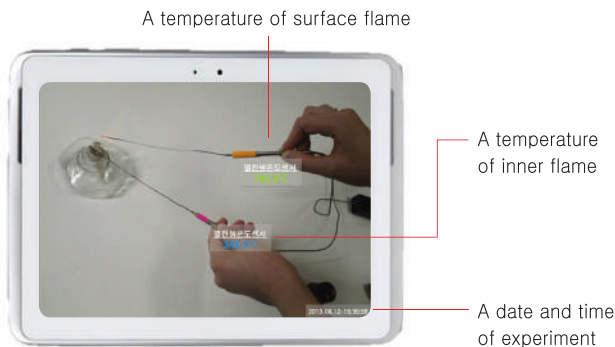
Data-Logging Program

Science# Program

* ARCamera (Augmented Reality)

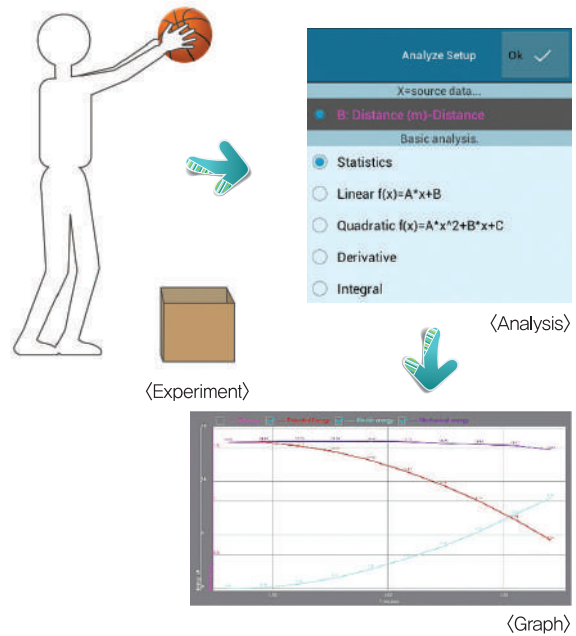
Recording Function

When you record the experiment by camera using by Science#, you can see the sensor's name and value on the screen of Tablet PC at the same time so that you are able to get the efficient data. In addition, you can check the result and experimental condition and expect a high quality education.



Science# shows results from sensors by detecting a color of Post-it.

* Analysis based on contents

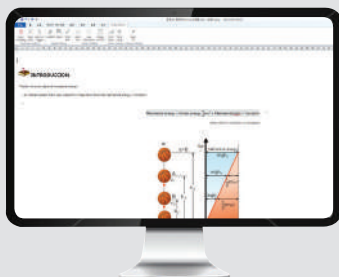


We have added physics formulas to a function of the formula menu. You will be able to do practically everything from calculating formulas to drawing graphs by touching the icon.

Contents Authoring TOOL

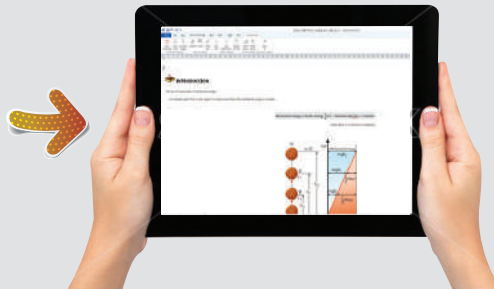
Apply to Science# & Making contents on MS-Word

MS-Word



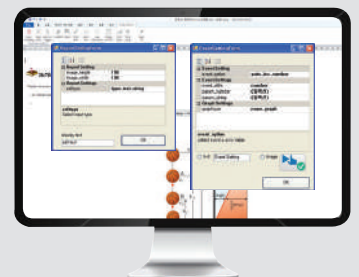
You are able to make contents by using Add-in function on MS-Word.

Science#



Students are able to share many contents that is made by other students or teachers through Science# contents Add-In function.

MS-Word



You are able to set up the experiment environment (Sensing gap, Measurement time, Data form) for data collecting in advance during contents making process.

NON-STOP



Science# (Data Analysis Program) is working on Windows and Android OS, Windows OS (above Windows XP) All devices like PC, Laptop, Tablet PC except Windows Smart Phone Android OS (above 4.0 version) All devices like Smart Phone, Tablet PC You can download "Science#" from Google Play Store.



An experiment based on contents in Science#

You can use both contents in Science# and contents from the internet. Collecting and analyzing data in Logger.



Making report

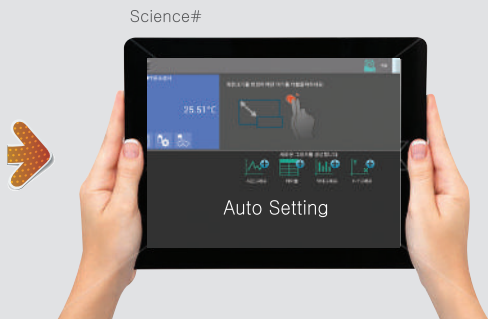
You can put the result of your experiment to a report by using the function of saving photographs and analysis data.




Teacher Evaluation

You can send a report to your teacher by using data sharing function. Then your teacher can evaluate your report promptly.

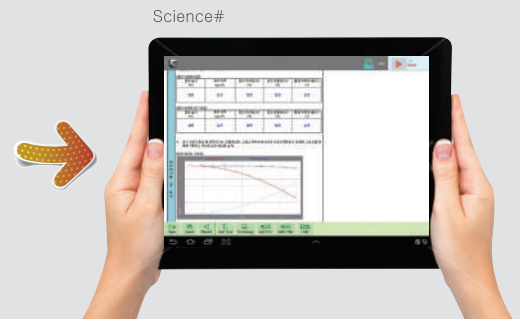
Science# for  



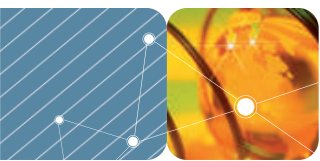
Push  auto-configuration button on Science# contents. Then your experiment environment setting and data could be applied to Logger.



You can make a report for the result of an experiment. You can insert number-data input window or set up proper data form.



Students can write a report which is made for a subject of experiment. You can save a diversity type of experiment data as images. You also can write and register a learning concept by opening number or text input window.



Data-Logging Program

Science# for

■ Wireless Connection

You are able to connect Science# to an interface through wireless connection. Students are able to enhance their concentration level with Science# because they are free from cables.

■ Possible to use on any Android-based devices

You are able to use Science# by using an application which you are able to download on any Android-based devices.

■ Compatible with MBL, SMBL

Science# is a multi-functional Logger that can be used with all MBL and SMBL Sensors.

■ Contents Authoring TOOL is provided

We provide the best optimized content experiments, where end-users can help use the logger with Add-In function in MS-Word.

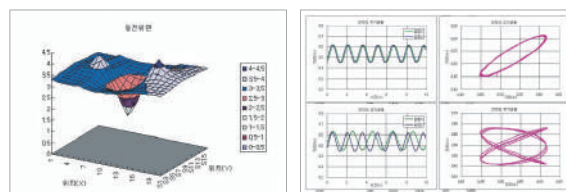
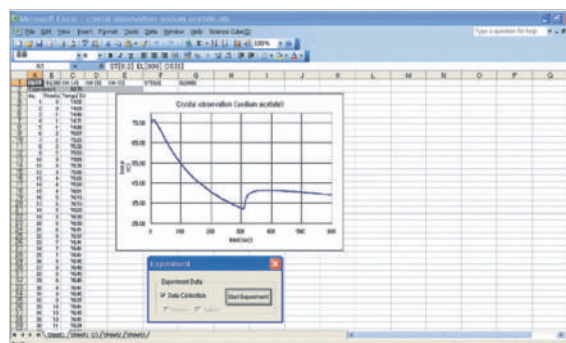


- It is possible to connect ALL ScienceCube's interface and Data Logger for MBL and SMBL,
- It supports all Windows OS above Windows XP except Windows RT, Windows CE
- All data is compatible with Science# for Android 2.0 and it is easy and simple to share and transfer the data between Android and Windows.
- Multi-Functional wireless connection
- A variety of contents for Physics, Chemistry, Biology and Earth Science
- Experiment Environment Auto-configuration
- Automatic computing mathematical formula based on contents
- Easy GUI
- Non-stop system for the reporting
- Contents Authoring tool based on MS-Word

Excel Based Program

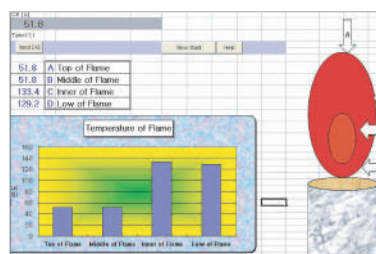
MBL & SMBL

Now you can apply data-logging to excel program by installation ScienceCube® program in your computer simply. You can use Excel's powerful and easy function for making charts and graphs, controlling variables, analyzing statistic. Also it's possible to work conversion, edition, sharing data. This program allows you make multi media report with Excel's original function.



Free editing Excel Chart and graph

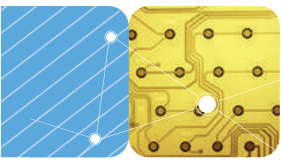
Easy data processing by using Excel's powerful function



Ready-made experiment sheet with MACRO Function in Excel

✔ Innovative Software Advantage of Excel based program

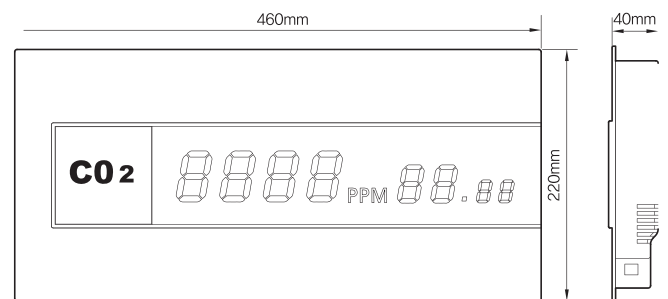
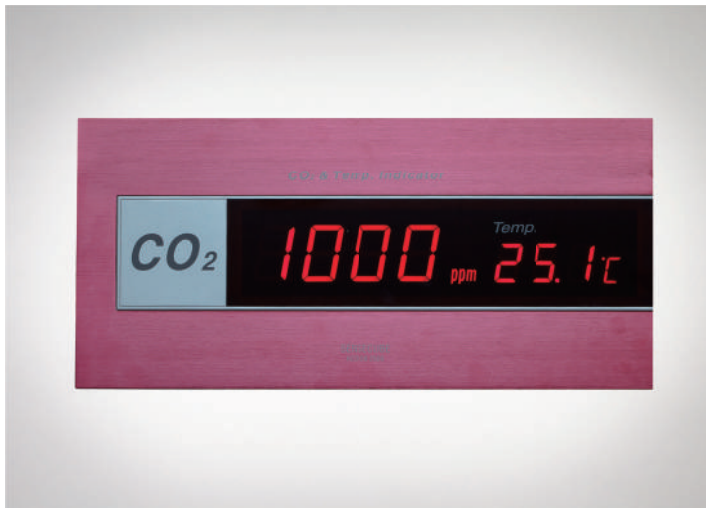
- Simple operation :
Beginner can learn how to operate the software without any trouble
- Powerful procession function :
Can record and analyze data at the real-time
- Software's popularity :
Can use to software as long as installing MS office program
- Software's utility :
to attract student's attention, user could use a vivid color in on's table and it would help to improve student's interest



Lap Equipment

SCS-100

CO₂ & Temperature Indicator



※ Specifications and images may change without prior notice

KCD-DB2000

Measurement

Sensing Method	Carbon dioxide	Dual Wavelength NDIR
	Temperature	PT
Measurement ranges	Carbon dioxide	0~2000ppm, 0~5000ppm, 0~10000ppm
	Temperature	-10~50°C (14~122°F)
	Measurement time interval	1.5 sec

General

Warm up time	< 3 min
Storage temperature	-40~70°C
Weight	< 1.5kg

Operating conditions

Operating temperature	0~50°C
Operating humidity	0~95%RH, Non-condensing

Electrical

Power supply	9VDC, 1.5A external adapter
Outputs	CO ₂ & Temperature display, Relay SPST, Buzzer
Communication	RS485

Dimensions

Length x Width x Height	220mm x 460mm x 40mm
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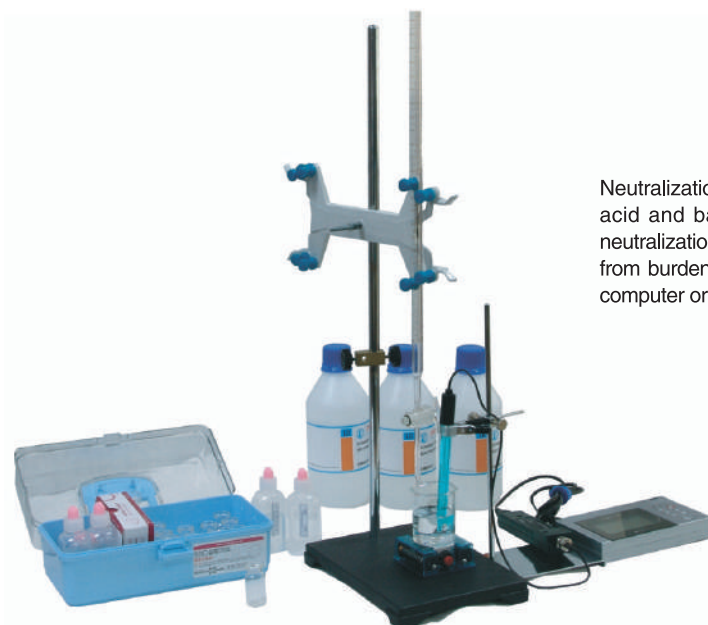
Features

- Slim design, Colored Aluminum panel
- High brightness LED (7-segment)
- Selecting temperature unit °C/°F
- Setting CO₂ level to close relay contacts for alarm, ventilation...
- Setting CO₂ level to flick figures and sound buzzer
- Monitoring CO₂ level at remote sites with RS485 communication
- Auto changing the brightness of display depending on indoor illumination
- Easy application to various indoor sites
 - classroom, store, hospital, fitness centre, theatres...



For Classroom Library

Neutralization Titration Package

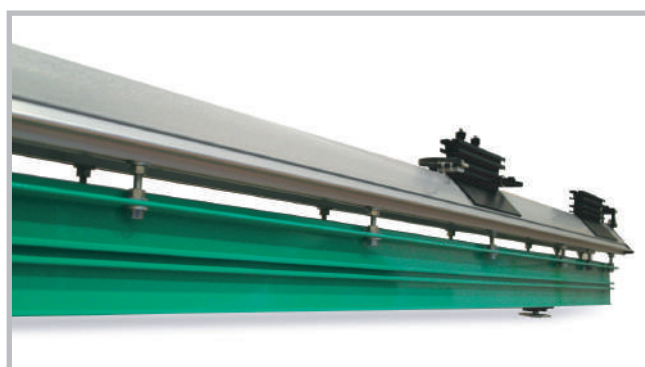


Neutralization Titration Package allows students to experiment neutralization of acid and base. ScienceCube supplies required reagents and indicators for neutralization titration experiment to see the changes obviously. It makes you free from burden of preparation. Also, students can investigate collected data on their computer or interface for analyzing.

✓ COMPOSITION

- Data-logger (Optional)
- Neutralization Titration Chemical Set
- Micro Stirrer
- Mini-Stand
- pH Sensor (Optional)
- Pt Temperature sensor (Optional)
- Manual

Air Track system



Usable Length : 1.5m
 Linearity : error $\leq 0.1\text{mm}$ in full length
 Slipper float weight : 3 times of slipper weight
 Slipper float height : $\geq 0.1\text{mm}$

The Air Cushion Track is specially designed for precise motion experiment by reduction of frictional resistance. You can investigate various motion's law as uniform motion, average and instantaneous velocities, uniform acceleration, conservation of energy with ScienceCube® Photogate or Motion Detector.



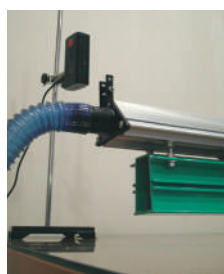
EXPERIMENT WITH PHOTOGATE

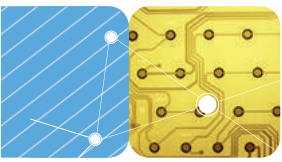
The Photogate is good for Measuring Velocity and investigating conservation of energy with Air Track.



EXPERIMENT WITH MOTION DETECTOR

The Motion detector is suitable for bi-directional measurements of motion with the Air Track.





Lap Equipment

SCS-300

Photosynthesis Experimental Equipment

✓ Possible Experiment List

- Respiration of plant
- Photosynthesis of plant
- Photosynthesis by an intensity of light
- Photosynthesis with CO₂
- Photosynthesis and Transpiration



Strong Points!

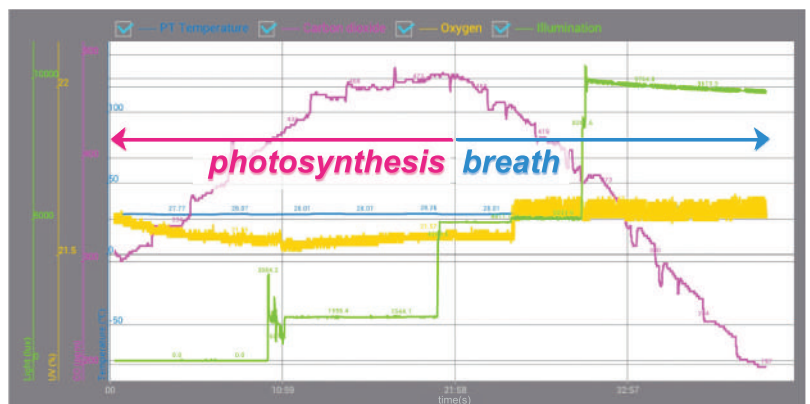
1. NO need to purchase submerged plant!

As from water plants, it is impossible to count numbers of dissolved O₂ bubble from land plant.

The existing experiment may even derive to errors of simple comparison.

With the photosynthesis experiment device, any types of leaves like lettuce are measurable.

This benefits feasible experiment anywhere at any time.



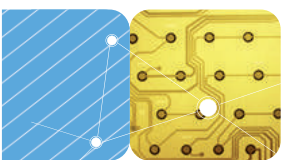
2. NO need to have water tank by using LED!

Chamber is designed to block air leakage and special LED dimmer for rising internal Chamber temp. from light and heat is used.

This includes blackout curtain of light for respiratory experiment.

3. Various physical quantity at the same time, YES! Real-time observation, YES!

Temperature, CO₂, Humidity, Photodiode, and etc. can be observed simultaneously with changing graphs in real-time.



Lap Equipment

SCS-700

Gas Volume Package

1. Description

Gas volume Package (SCS-700) is designed to register gas temperature and measure gas volume. This package has to be connected to Data Logger and computer. Gas Volume Package can be used in elementary, middle, high school and also general physical, chemical laboratories.

2. Specification

- Range: 0ml (350ml) ~ 400ml (850ml)
- Error: under 63%
- Gas Temperature Range: 0°C ~ +80°C
- Error on measuring temperature : under 62%
- Dimension : length - 410 mm
width - 90 mm
height - 100 mm
- Length of cable : 120 mm
- Weight : 300gr



SCS-800

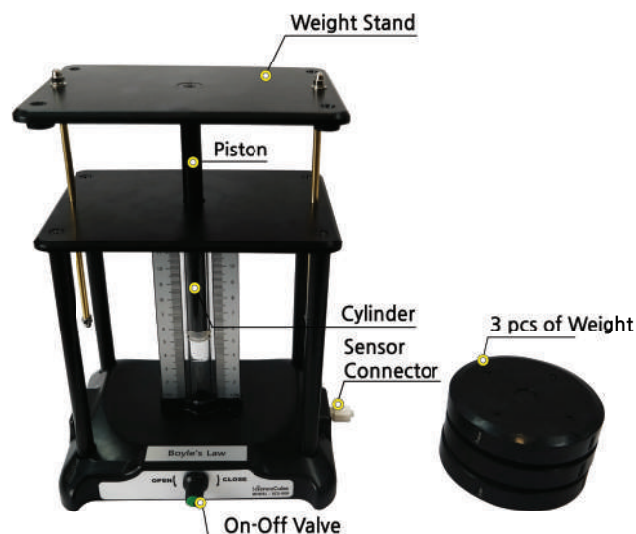
Boyle's Law Package

1. Description

Boyle's Law Package (SCS-800) is designed to explore the elastic properties and volume / pressure relationship how the pressure of a gas tends to decrease as the volume of a gas increases. This package has to be connected to Data Logger and computer for the experiment. Boyle's Law Package can be used in elementary, middle, high school and also general physical, chemical laboratories.

2. Composition

Dimension: 180 X 130 X 170 (mm)



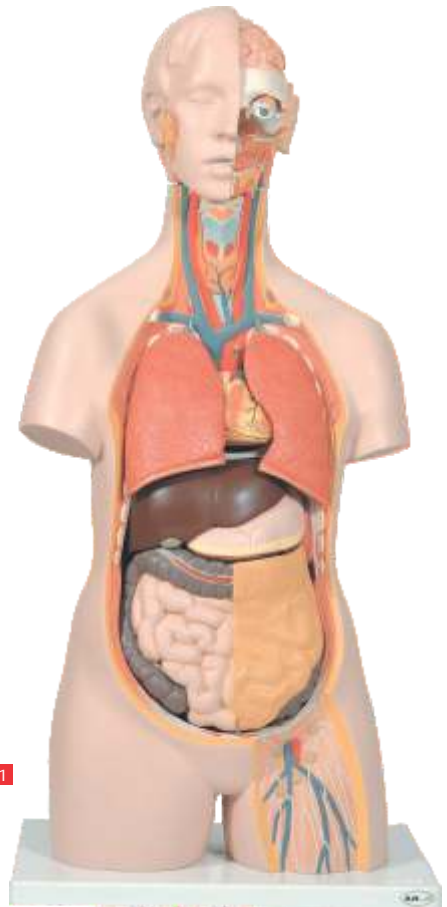
HUMAN TORSO, UNISEX, 12 PARTS 1

The following components of this torso are removable:

- 2 - part head
- 2 - part removable heart
- 2 Lungs
- Stomach
- Liver with gall bladder
- Front half of kidney

With numbered Key Card.

4070450 Human Torso, Unisex, 12 Parts



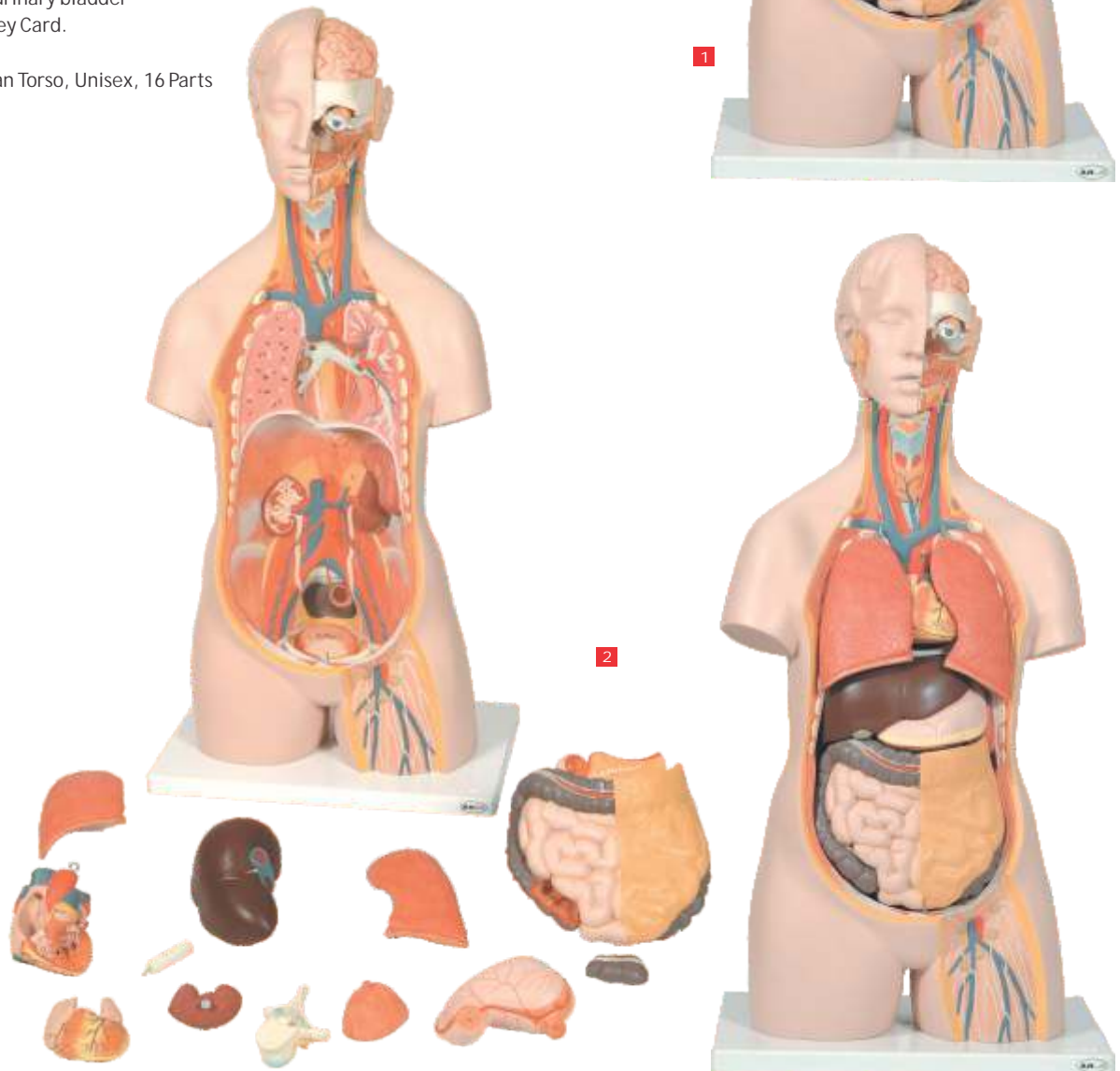
HUMAN TORSO, UNISEX, 16 PARTS 2

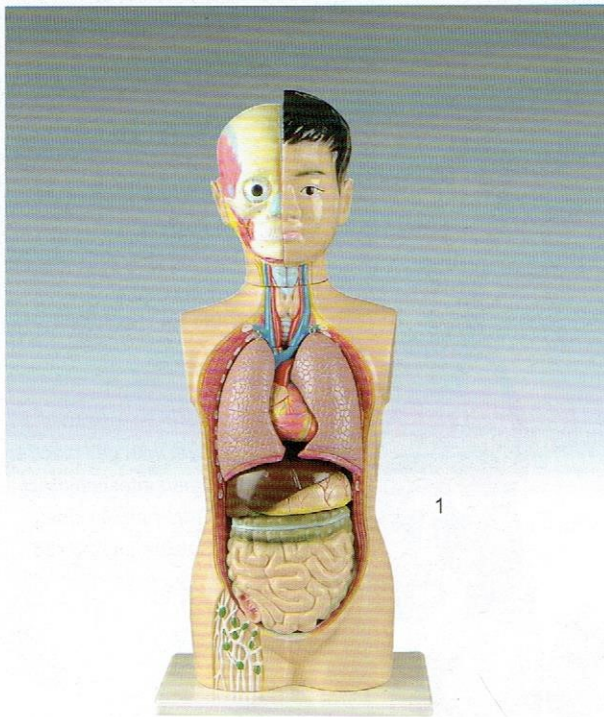
This Torso is especially popular for use by the students for human anatomical studies. It shows the human anatomy in great detail and contains the following removable parts:

- 3-part Head
- 2 Lungs with sternum and rib attachments
- 2-part heart
- Stomach
- Liver with gall bladder
- 4-part intestinal tract
- Front half of kidney
- Front half of urinary bladder

With numbered Key Card.

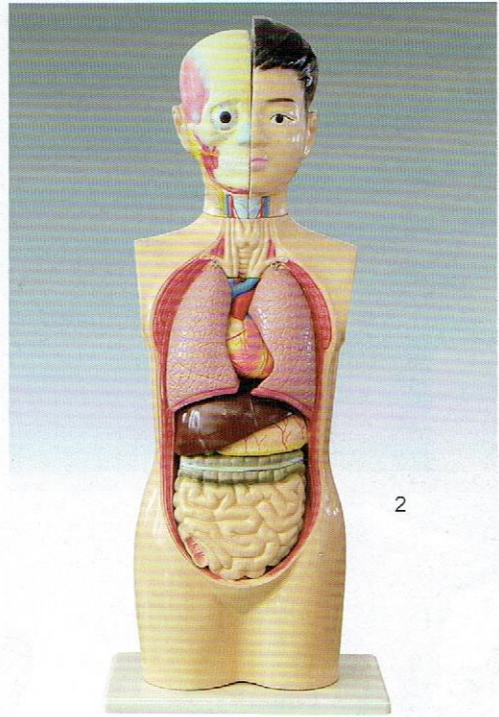
4070550 Human Torso, Unisex, 16 Parts





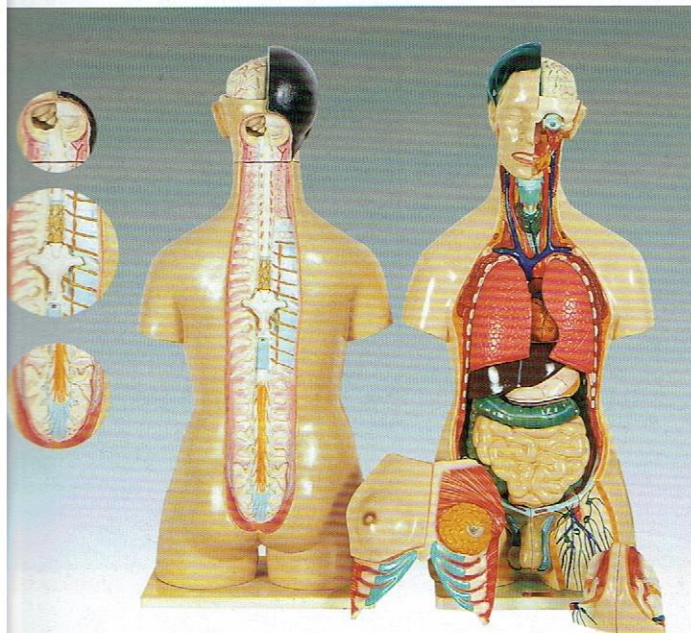
QH3301-2 Human Torso

Tall 65cm. Dissectable into following parts: head 2parts, body 1part, lung 2parts, heart 1part, liver 1part, stomach 1part, intestine 1part.



QH3301-2 Human Torso

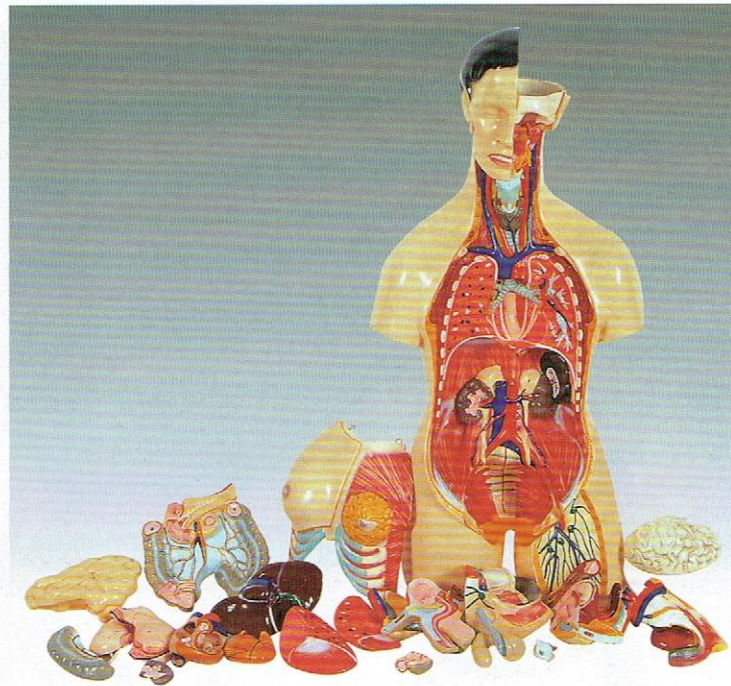
Tall 70cm. Dissectable into following parts: head 2parts, body 1part, brain 1part, lung 2parts, heart 2parts, liver 1part, stomach 1part, intestine 1part, kidney 1part.



QH3301-3 Human male and female torso

Life size. Dissectable into 23 parts. The head is detachable which separates into two parts and the left side brain is removable. The chest plate shows the breast on the right side and mammary glands on the left side. Male and female genital organs can be interchanged. The back is open to show the entire nerve cord and the relationship of the brain and the vertebrae. On base.

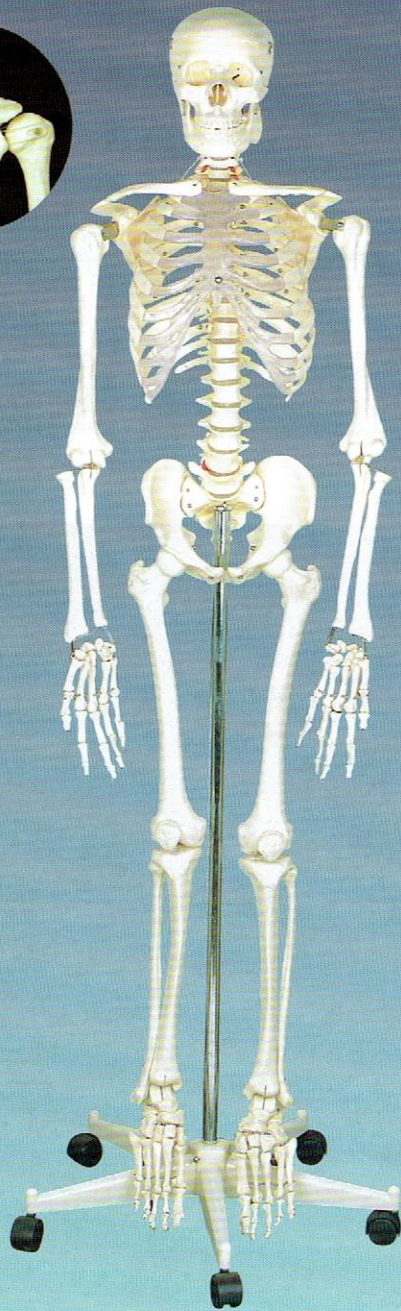
Size(cm):89x47x28



QH3301-4 Human male and female torso

It features female or male genitalia and so on. Dissectable into many parts: breast plate, head, eyeball, brain, vertebral spinal nerves, lung, heart, liver, kidney, stomach. They can give you all the details you want.

Size(cm):89x47x28



QH3302 Model of human skeleton(170cm)

Tall:170cm. Correctly articulated to show the normal posture. Consists of a 3-part skull, a cut calvarium and a removable spring- held mandible. The upper and lower extremities are removable. Rod supported, on stand.

Size(cm): 96x46x29



QH3302-1

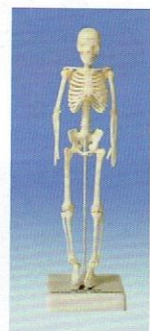
Model of human skeleton(170cm)

Same as the QH3302, except the left hand side is painted to show the muscle origins in red and insertions in blue. Rod supported, on stand.

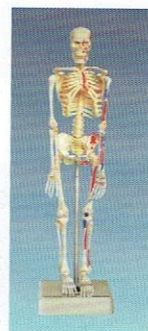
Size(cm): 96x46x29

QH3302-7

Mini-skeleton(18cm)



1



2

QH3302-6

Mini-skeleton(42cm)



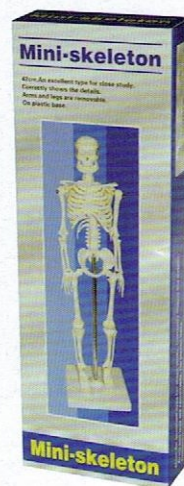
1



2

Special features include a movable jaw on spring, a skull whose top half opens for a look inside, arms and legs that are removable for individual study. Made of washable and unbreakable PVC plastic. Plastic stand included. The nerves and arteries are painted in the left side. Tall:42cm.

Size(cm): 12x12x42



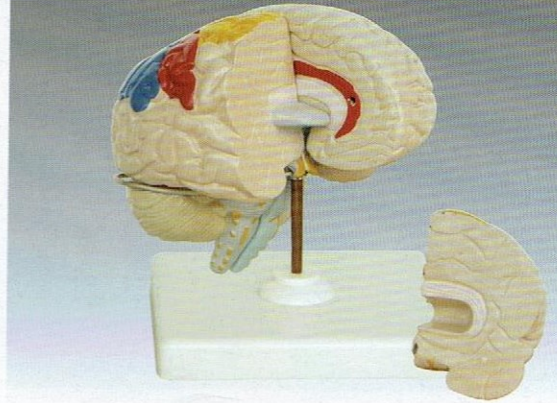
Tall: 42cm. An excellent type for close study. Correctly shows the details. Arms and legs are removable. On plastic base.

Size(cm): 27x15x9



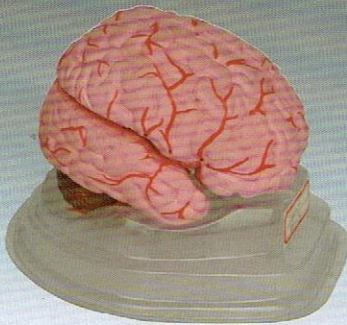
QH3307-4 Human Brain

Life size. Dissectable into 8 parts. With a median section, the brain is divided into right and left half. Each half consists 4 pieces: frontal parietal lobe, temporal occipital lobe, half brain stem, half cerebellum. On detachable stand with base. Size(cm): 14x14x17.5



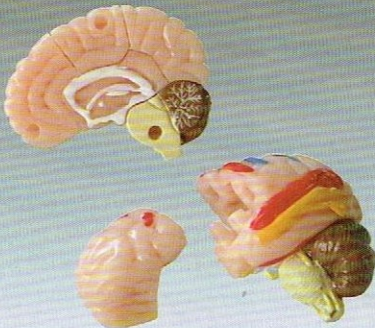
QH3307-5 Human Brain

This 2 times life-size brain is medially divided and disctible into 5 parts. The frontal lobes and brain stem are removable . The model enables you to see the motor, sensor and functional centers which are shown in different colors. Available with labels in either English.



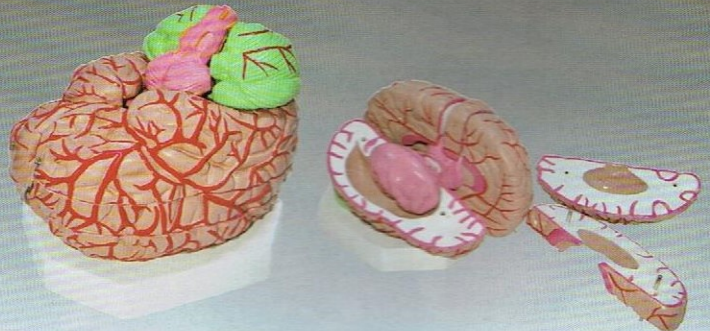
QH3307-6 Brain With Arteries

The model shows arterial network of vessels. Separates into 9 Parts:frontal and parietal lobes.Temporal and occipital lobes. Medulla. Cerebellum.Basilar artery Size(cm): 15x16x17



QH3307-7 Mini human brain model

Size(cm): 6x7x6



QH3307-8 Super brain with arteries model

Size(cm): 37x29x32cm

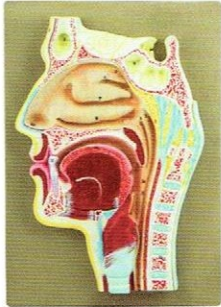
AM 10042
DENTAL CARE MODEL –
GIANT SIZE

This model is enlarged enough for showing to a classroom for cleaning techniques with large tooth-brush.



AM 10045 HUMAN UPPER & LOWER JAW

A depiction of the upper and lower jaws shows a cross section of the teeth and jaw. The 2 - piece model opens to reveal the palate and masticating surface of the teeth. Key indicates the 18 numbered features. Finally painted fiber glass.



AM 10047
HUMAN NOSE ON BOARD – L.S.

Enlarged approx. 2 times, Crossing on windpipe and esophagus demonstrated. On base and Numbered with English Key card.



AM 10050
LARYNX WITH TONGUE AND TEETH

Natural size, Larynx: cartilages ligaments muscles relief of mucous membrane and thyroid gland are shown. The front part of the lower jaw is removable. Tongue separates into 2 parts medially. Sublingual gland and sub- mandibular gland are shown. Separates into 5 parts.



AM 10052
LARYNX MODEL – 3 PARTS

Natural size, 3 parts, shows larynx, wind pipe, ligaments, muscles and thyroid gland, one half is removable, on base, with English key card.

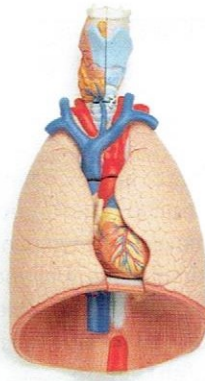
AM 10055 HUMAN LUNG RIGHT

Dissectible in 2 parts, mounted on stand, showing all important parts. Mounted on base. Numbered with English Key card.



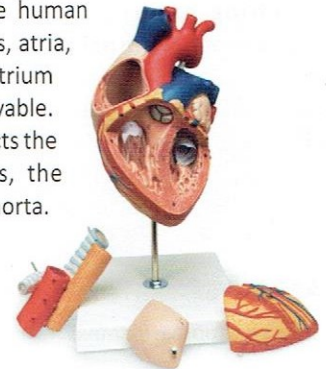
AM 10057
HUMAN LUNGS WITH HEART &
LARYNX – 7 PARTS

The high quality lung model contains the following removable parts for added anatomical detail. 2-part larynx, Trachea with bronchial tree, 2-part heart, Subclavian artery and vein, Vena cava, Aorta, Pulmonary artery, Esophagus, 2-part lung (front halves removable), Diaphragm. Numbered with English Key card.



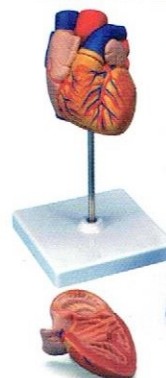
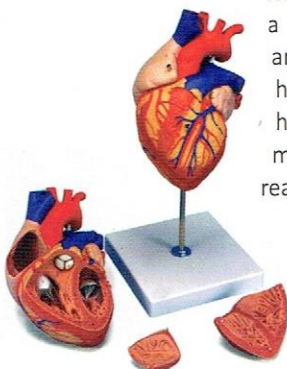
AM 10060 HUMAN HEART WITH ESOPHAGUS
AND TRACHEA MODEL – 5 PARTS

Enlarged approx 2 times, this unique, five-part model shows the anatomy of the human heart in great detail with ventricles, atria, valves, veins, and the aorta. The atrium walls and front heart wall are removable. Additionally, this heart model depicts the upper section of the esophagus, the upper bronchi, and the ascending aorta. Comes on removable stand. Mounted on base. Numbered with English Key card.



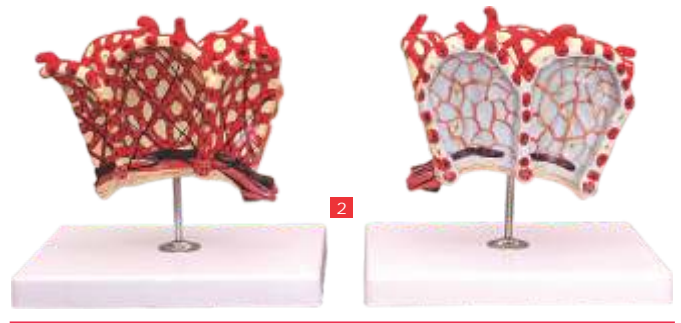
AM 10062 HUMAN HEART – 4 PARTS

This 2-times life-size heart model allows a very easy identification of all anatomical structures in the human heart. The atrium walls and the front heart wall are removable to reveal the most professionally detailed and realistic heart available. Mounted on base. Numbered with English Key card.



AM 10064 HUMAN HEART
2 PARTS

Natural size, the front heart wall is detachable to reveal the chambers and valves inside the human heart. Mounted on base. Numbered with English Key card.



FUNCTIONAL LUNG MODEL

The unique and easy to use model features parts that accurately replicate the human structures' function during respiration. Pull on the rubber diaphragm covering the bottom of bell jar reduces pressure inside jar, the balloon "lungs" fill with air. Push the diaphragm in, and the balloon collapse recreating exhalation. The set includes an acrylic bell jar, Y tube, two balloons and rubber diaphragm with a knob for easy movement.

4075070 Functional Lung Model

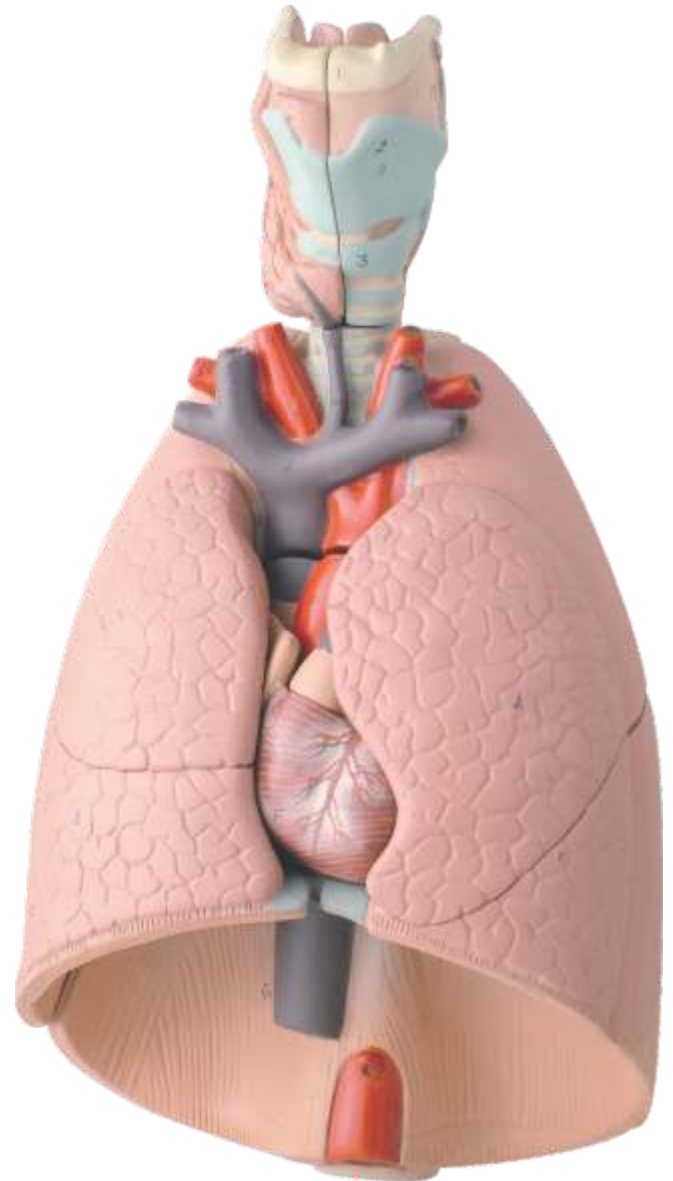


LOBULE OF THE LUNG WITH ADDITIONAL MODEL PULMONARY ALVEOLI

A beautifully detailed depiction of the structures involved in gaseous exchange, the model clearly shows the alveolar epithelium, where oxygen is taken in and carbon dioxide is give off, as well as the alveoli, intact and sectioned, to reveal the capillary network. Arteries and veins are displayed with both bronchioles connecting to alveolar ducts, color-coded elastic fibers, smooth muscle, mucous membranes, and cartilage. The back of the model diagrams the circulation within the lobule and the pleura. The model is mounted on a stand and can be removed for closer examination.

4075100/1 Lobule of the Lung 1

4075100/2 Model of Pulmonary Alveoli 2



HUMAN LUNGS WITH HEART

Dissectible in 4 parts, economy range, mounted on base. Showing the position of lungs diaphragm and heart. With numbered Key Card.

4075150 Human Lungs with Heart



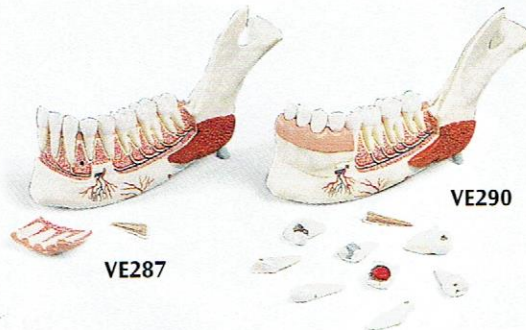
D25

Half Lower Jaw, 3 times full-size, 6-part

This model represents half of the lower left jaw of a young person. One section of bone is removable to expose the tooth roots, spongiosa, vessels and nerves. Canine and first molar are removable, and longitudinally sectioned. On stand.

35x18x36 cm; 1.2 kg

L/D/E/F



VE287

VE290

VE290

Advanced Half Lower Jaw with 8 diseased teeth, 19-part

The front section of bone and all the teeth are removable, one incisor is longitudinally sectioned. Nerves, blood vessels, the sublingual and submandibular glands are shown. The diseased teeth show various stages of caries from a small and easy-to-treat example on an incisor, through to advanced degradation of a molar, showing exposed root. Using this model it is simple to explain the necessity of good tooth care.

22x32x9 cm; 1.1 kg

L/D/E/F

VE287

Half Lower Jaw, 3 times full-size, 11-part

The front section of bone and all the teeth are removable, one incisor is longitudinally sectioned. Nerves, blood vessels, the sublingual and submandibular glands are shown.

22x32x9 cm; 1.1 kg

L/D/E/F



D20

D20

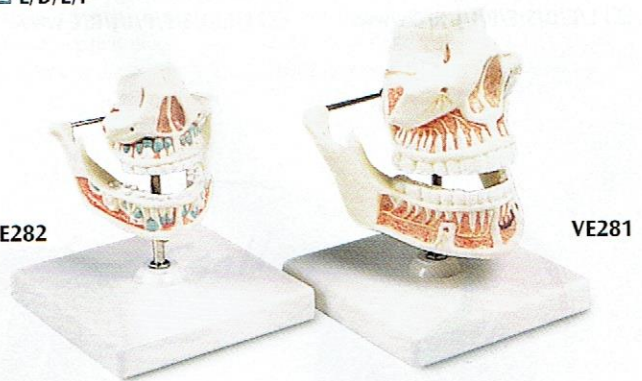
Dentition Development

Cast from a natural specimen, 4 upper and lower jaw halves, 4 different stages of development:

- New born
- Approx. 5-year old child
- Approx. 9-year old child
- Young adult

33x10x20 cm; 0.5 kg

L/D/E/F



VE282

VE281

VE282

Milk Dentures

Upper and lower jaw are opened to show the arrangement of the remaining teeth. On base.

13x12x13 cm; 0.6 kg

L/D/E/F/S

VE281

Adult Dentures

Tooth roots, spongiosa, vessels, and nerves are exposed. The lower jaw is movable. On base.

16x12x13 cm; 0.9 kg

L/D/E/F/S

VE300

Upper Incisor, 2-part

Complete horizontal section cut in order to show pulp. On removable base.

23 cm; 0.9 kg

L/D/E/F/S/P/I/J/R/C www.



D15

D15

Giant Molar with Dental Caries, 15 times life-size, 6-part

This model depicts an upper triple-root molar and separates into 6 parts. It features a longitudinal section through the crown, two roots and the pulp cavity. Contains removable pulp and three tooth inserts with different stages of advanced caries. On stand. 24 cm; 1.5 kg

L/D/E/F



VE300

VE299

VE298

VE299

Upper Twin-Root Molar with Caries, 2-part

Half of tooth crown removable to show pulp and the onset of caries. On removable base.

23 cm; 0.9 kg

L/D/E/F/S/P/I/J/R/C www.

VE298

Upper Triple-Root Molar with Caries, 2-part

Longitudinal section of tooth crown and root to show pulp and the onset of caries. On removable base.

23 cm; 1.1 kg

L/D/F/S/P/I/J/R/C www.

AM 10020 HUMAN EYE - 5 TIMES

This Giant Eye replica is a great tool to teach-learn the anatomy of the eye. Removable 6 parts of the human eye model include upper half of the sclera with cornea and eye muscle attachments, both halves of the choroid with iris and retina, lens, vitreous humor. The gigantic high quality eye anatomy model is on a base and numbered with English Key card.



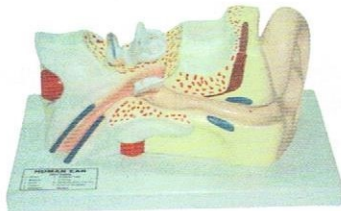
AM 10026 FUNCTIONAL EYE MODEL

With this budget functional eye model the functions of the human eye can be taught very effectively. By moving the retina, the shape of the eye can be changed. The lens and ciliary body are made of silicone to allow the change of form and thickness of the lens. Pictures can be projected on the retina of the functional eye that allows you to demonstrate: Accommodation of the lens, Near point of vision, Myopia (nearsightedness), Hypermetropia, Presbyopia, How to correct these problems with glasses.



AM 10030 HUMAN EAR - 3 PARTS

Enlarged approx. 2 times, dissectable into 3 parts, showing external, middle and internal ear. Mounted on base. Numbered with English Key Card.



AM 10040 HUMAN TEETH MODEL SET

Enlarged approx. 8 times.

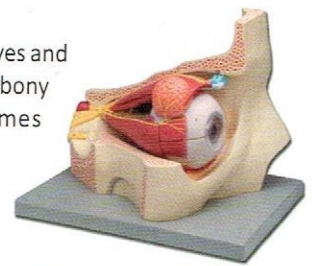
The complete set includes 5 tooth models, mounted on stand and detachable individually:

- 2-piece lower incisal, longitudinal section
- 2-piece lower canine, longitudinal section
- inferior to one root
- lower molar in 2 parts, longitudinal section with caries
- 3-part upper molar



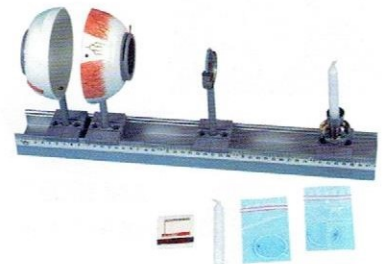
AM 10023 EYE WITH ORBIT

This model shows eyeball with optic nerves and muscles in its natural position in the bony orbit. Dissectible into 10 part. 3times enlarged.



AM 10025 EYE DEMONSTRATION MODEL

This physical eye model can be used to demonstrate the optical functions of the human eye, e.g. representation of an object on the retina, accommodation (change in the lens curvature), short-sightedness and far-sightedness. The physical eye model comprises: Half eyeball with adjustable iris diaphragm, lens holder and 2 convex lenses ($f = 65 \text{ mm}$ and 80 mm), on a rod, Half eyeball with retina (transparent screen), on a rod, Lens holder with one concave and one convex corrective lens, on a rod, Candle holder with 2 candles, on a rod, Aluminum rail, 50 cm long, with 4 clamp slides



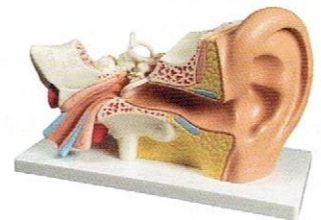
AM 10029 HUMAN EAR - MINI

Human ear model for those on a budget. Ear model represents the outer, middle, and inner ear. Mounted on base. Numbered with English Key card.



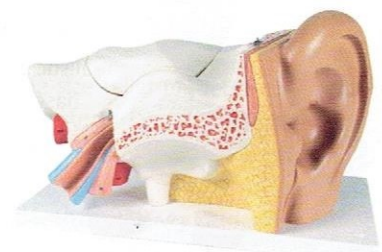
AM 10032 HUMAN EAR - 4 PARTS

Enlarged approx. 4 times. The petros portion of the temporal bone section of the auditory canal is removed. The tympanic membrane with malleus and incus are also removable. Dissectible into 4 parts. Mounted on base. Numbered with English Key card.

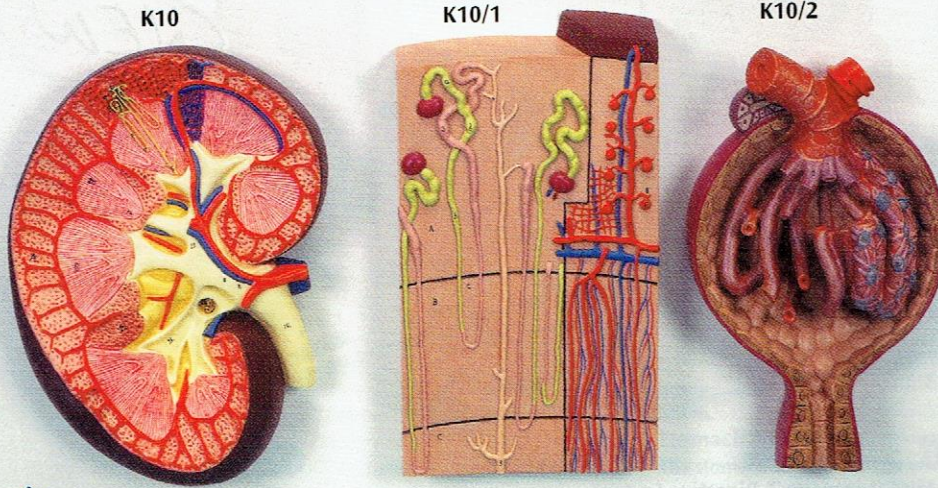


AM 10034 HUMAN EAR - 5 PARTS

Enlarged approx. 4 times. Dissectible in 5 parts. The model shows the external, middle and inner ear. The eardrum with malleus, incus and stapes are removable. The other removable parts are composed of: cochlea and labyrinth with vestibular and cochlear nerves, 2 bone sections that define the middle and inner ear.



K11



K10/1

Nephrons and Blood Vessels, 120 times full-size
On baseboard.
26x19x5 cm; 0.7 kg
 L/E/D/S/F/P/I/J [www.](http://www.3b.com)

K10/2

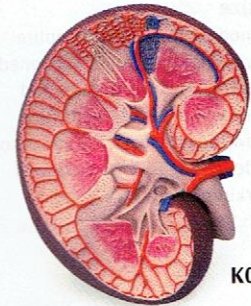
Malpighian Corpuscle of Kidney, 700 times full-size
On baseboard.
26x19x8 cm; 0.7 kg
 L/E/D/S/F/P/I/J [www.](http://www.3b.com)

K11

Kidney Section, Nephrons, Blood Vessels and Renal Corpuscle
A complete series of 3 models (K10, K10/1, and K10/2) for studying the kidney and its different structures in great detail. Delivered on baseboard.
29x52x9 cm; 2.8 kg
 L/E/D/S/F/P/I/J [www.](http://www.3b.com)

K10

Kidney Section, 3 times full-size
Longitudinal section of the right kidney. On baseboard.
33x20x10 cm; 1.0 kg
 L/E/D/S/F/P/I/J [www.](http://www.3b.com)



K09



K13

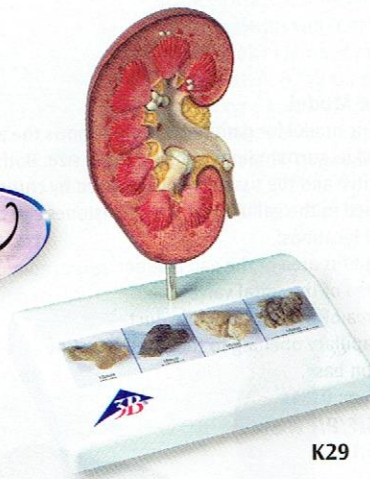
K13

3B MICROanatomy™ Kidney

This extremely detailed model shows the morphologic/functional units of the kidney greatly magnified. Six model zones illustrate the following fine-tissue structures that serve the production of urine:

- Longitudinal section of a kidney
- Section of renal cortex and renal medulla
- Wedge-shaped section of a kidney lobe with a diagrammatic depiction of three nephrons with Henle's loops of different lengths and diagrammatic depiction of the vascular supply
- Diagrammatic illustration of a nephron with a short Henle's loop and didactic/diagrammatic illustration of the vascular supply
- Diagrammatic illustration of an opened renal corpuscle with nephron and light-microscopic transverse sections of the proximal, attenuated and distal segments of a renal tubule
- Diagrammatic/didactic illustration of an opened renal corpuscle

Mounted on a base.
23.5x25.5x19 cm; 1.3 kg
 L/E/D/S/F/P/I/J [www.](http://www.3b.com)



K29

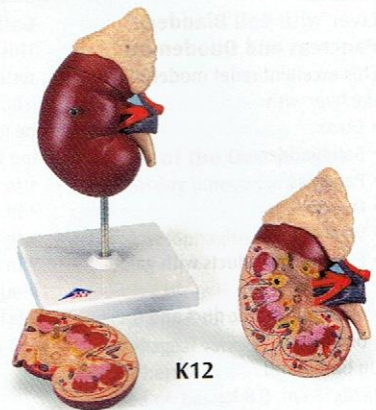
K29

Kidney Stone Model

The renal calices, the renal pelvis and the ureter are opened so that concretions or stones can be identified in the following typical positions:

- In the area of the renal pyramids
- In the area of origin of the upper calix group
- In the renal cortex
- In the connecting tubule of the lower calix group, causing congestion of the minor calices (partially closed, partially opened)
- In the ureter

4 original colour pictures on the base show various kidney stones.
14x10x16.5 cm; 0.18 kg
 E/D/S/F/P/J [www.](http://www.3b.com)



K12

K09

Basic Kidney Section, 3 times full-size

Longitudinal section of the right kidney. All important structures are shown.
8.5x19x26 cm; 0.9 kg

K12

Kidney with Adrenal Gland, 2-part

This model shows:

- Kidney with adrenal gland
- Renal and adrenal vessels
- Upper portion of ureter

The front half of the kidney is removable to enable demonstration of cortex medulla and vessels as well as renal pelvis. On stand.
20x12x12 cm; 0.9 kg
 L/D/E/F/S/P/I/J/R/C [www.](http://www.3b.com)

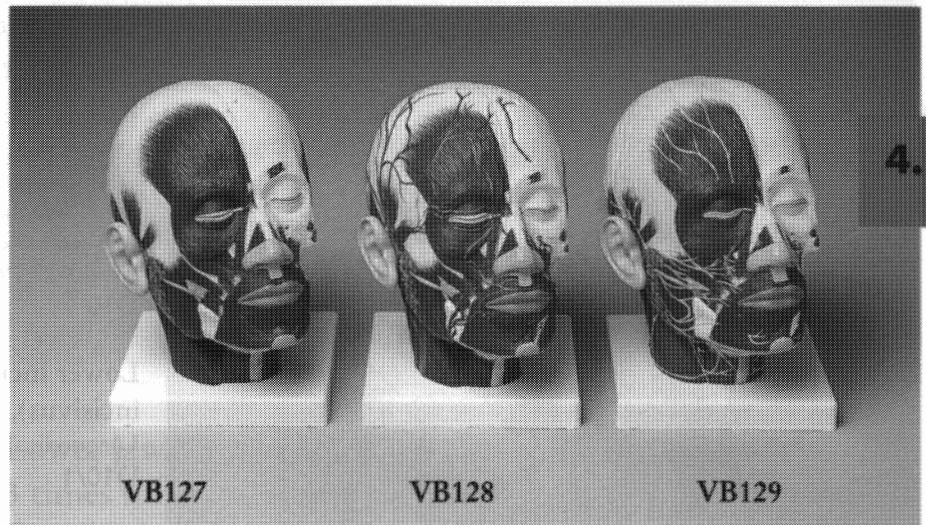
Head and Nose Models

4.1.



Head and skull, 5-part

Colour-differentiated representation of the head, medially divided. The skin and facial muscles of the right outer half are removed to show the deeper structures. Eyeball, bone cover over the sinus maxilaris and right tongue half removable. Numbered, with Key card: D or GB. Dimensions: 38x40x23cm
W42512



Musled head and neck

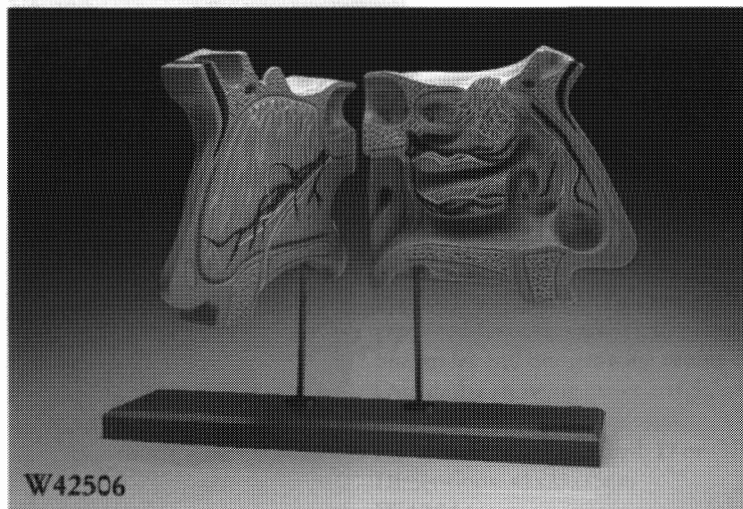
Model shows the superficial musculature with parotid gland and submandibular gland on the right half, and the deep musculature on the left half. Lower jaw partially exposed. On baseboard. Key card: L/D/GB/F/E. Dimensions: 24x18x24cm
VB127

Musled head with neck and blood vessels

As VB127, but also showing blood vessels. Key card: L/D/GB/F/E. Dimensions: 24x18x24cm
VB128

Musled head with neck and nerves

As VB127, but also showing nerves. Key card: L/D/GB/F/E. Dimensions: 24x18x24cm
VB129



Nose and olfactory organ, Lecture hall model, 4 times full-size

Nose halves medially divided, from the base of the skull to the gum. On the right half the nose septum is shown with vessels and nerves. The left half shows all the structures of the inner nasal cavity, sinus and the opening of the eustachian tube. Parts numbered and described on the outside. On base, rotatable. Key card: D or GB. Dimensions: 41x25.5x18cm
W42506

**AM 10067
HYPERTENSION MODEL**

Showing the harmful effects of hypertension on the most susceptible organs. It consists of scaled down depictions of brain, eye, 2 part heart, 2 part kidney, enlarged artery. All of the organs can be rotated or removed for closer viewing. Mounted on base. Numbered with English Key card.



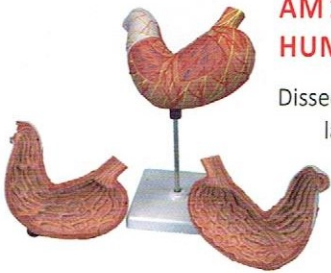
AM 10070 RESPIRATORY SYSTEM ON BOARD

Demonstrating Breathing and essentials of gaseous exchange in lungs and body tissues, Nose and Buccal cavities, Larynx dissected, lungs and Diaphragm etc. are very clearly shown in full details, mounted on base. All parts are clearly numbered with English Key Card.



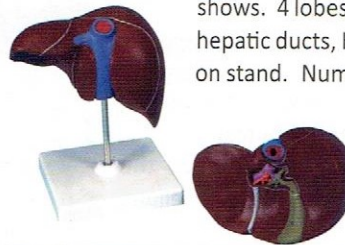
**AM 10075
HUMAN STOMACH MODEL - 2 PARTS**

Dissectible into 2 Parts, displays the different layers of the stomach walls. The front half of the stomach can be removed for studying the anatomy of the stomach in detail. It depicts lower esophagus, vessels, nerves & comes on a removable stand.



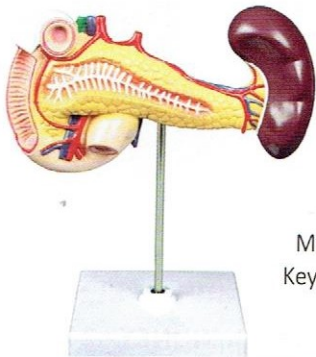
AM 10078 HUMAN LIVER

This realistic liver with gall bladder shows. 4 lobes with gall bladder, Extra hepatic ducts, Hilus vessels. Mounted on stand. Numbered with English Key card.



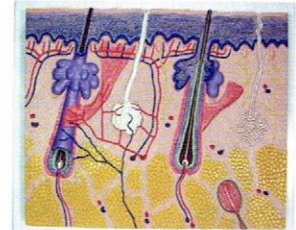
AM 10079 HUMAN SPLEEN & DUODENUM

Life-size model of the pancreas, duodenum, and spleen makes a great teaching and demonstration model, and is ideal for students, teachers, and medical professionals. Duodenum is partially opened to show bile duct and important internal structures. Pancreas is dissected to reveal the pancreatic duct. Mounted on stand. Numbered with English Key card.



AM 10082 HUMAN SKIN - ADVANCED

Enlarged 70 times. This skin relief model shows a section through the three layers of the hair-covered skin of the head. The skin section shows: Representation of hair follicles with sebaceous glands Sweat glands Receptors Nerves Vessels The skin section portrays the anatomy of the skin at 70 times life size. Mounted on base. Numbered with English Key Card.



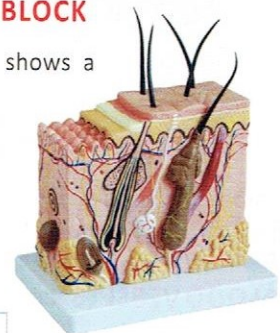
AM 10084 HUMAN SKIN

Enlarged 300 times. This hand painted model is comprehensive, showing details of the three layers, sebaceous and sweat glands, hair follicles, erector muscles, arteries, nerves, veins, and more. Mounted on a base. Numbered with English key card.



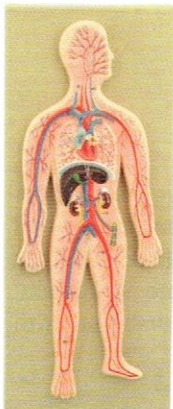
AM 10085 HUMAN SKIN BLOCK

Enlarged 70 times. This model shows a section of human skin in three dimensional forms. Hair, sebaceous and sweat glands, receptors, nerves and vessels are shown in detail. Mounted on base. Numbered with English Key Card.



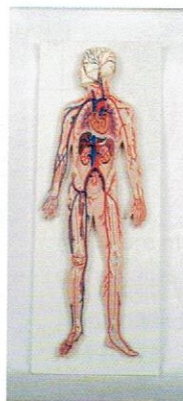
**AM 10089
HUMAN CIRCULATORY SYSTEM**

This hand painted model details the complete blood circulation system in veins and arteries. Mounted on a base. Numbered with English key card.



**AM 10090
HUMAN CIRCULATORY SYSTEM - ADVANCED**

One-half life-size relief model of the human circulatory system. Details the heart, lung, liver, spleen, kidneys, partial skeleton & arterial/ venous system. Mounted on base. Numbered with English Key Card.



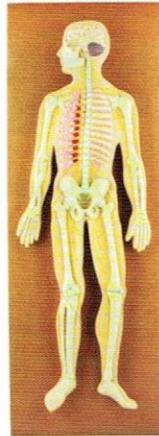


AM 10092
HUMAN DIGESTIVE SYSTEM

Model of human digestive system showing nose, mouth cavity and pharynx, esophagus the gastrointestinal tract, liver with gall bladder pancreas and spleen, duodenum, cecum and rectum are opened. Transverse colon is removable to show internal structure. Excellent tool for showing path of food. Mounted on a base. Numbered with English key card.

AM 10094
HUMAN NERVOUS SYSTEM

This model helps in studying general view of the peripheral and central human nervous system. The head is open to study the important features of brain and cerebellum, the pathway of the main nerves is well illustrated in relation to the skeleton. Mounted on base. Numbered with English Key Card.



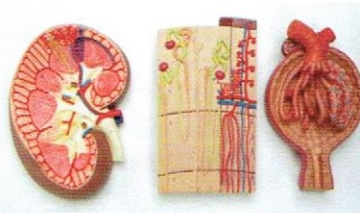
AM 10098 **AIDS VIRUS**

It is an extra ordinarily enlarged model to show the outer lipid membrane with protein structure and the internal nucleus, which contains the viral hereditary matter (RNA). The nucleus is removable and condoms can be put underneath to provide a message regarding measures to take in protection against HIV. Mounted on a base. Numbered with English Key Card.

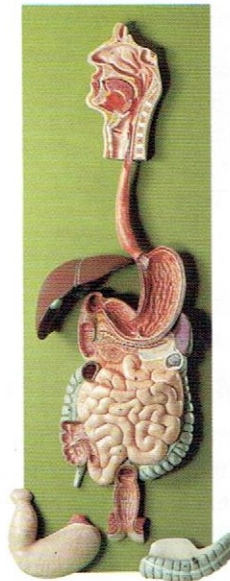


AM 10099 **KIDNEY SECTION, NEPHRONS & BLOOD VESSELS & KIDNEY GLOMERULUS**

The **Kidney Section Model** is made up of 3 separate models to provide a full study of the anatomy of the human kidney and the different structures of the kidney. The three models come mounted on a baseboard for easy display, making it an ideal teaching aid. Mounted on base and Numbered with English Key card.



AM 10093 **HUMAN DIGESTIVE SYSTEM – 3 PARTS**



This life-size Digestive System Model 3 Parts, shows the human digestive tract from mouth cavity to rectum. The oral cavity, the pharynx, and the first part of the esophagus are dissected along the medial sagittal plane. The liver is shown together with the gallbladder and the pancreas is dissected to expose internal features. The stomach is open along the frontal plane and the duodenum, caecum, part of the small intestine, and the rectum are open to expose the interior. The transverse colon is removable. An additional relief model of the head shows the anatomy of the mouth with salivary glands. Mounted on board. Numbered with English Key Card.

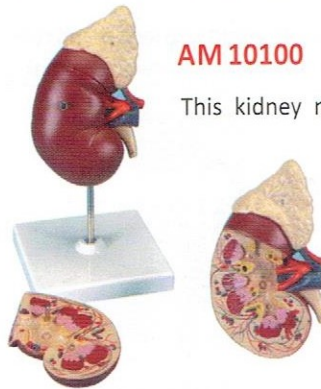
AM 10096 **NEURON MODEL**

Enlarged 2,500 times Model of a typical Neuron. An excellent model to study the internal structures of the cell body. The myelin sheath with nodes of Ranvier and Schwann cells can be revealed by removing a part of the dendrite. Mounted on a base. Numbered with English Key Card.



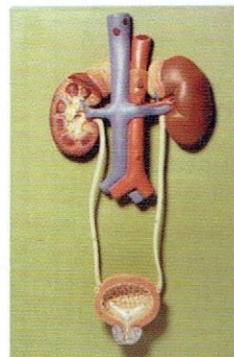
AM 10100 **HUMAN KIDNEY – 2 PARTS**

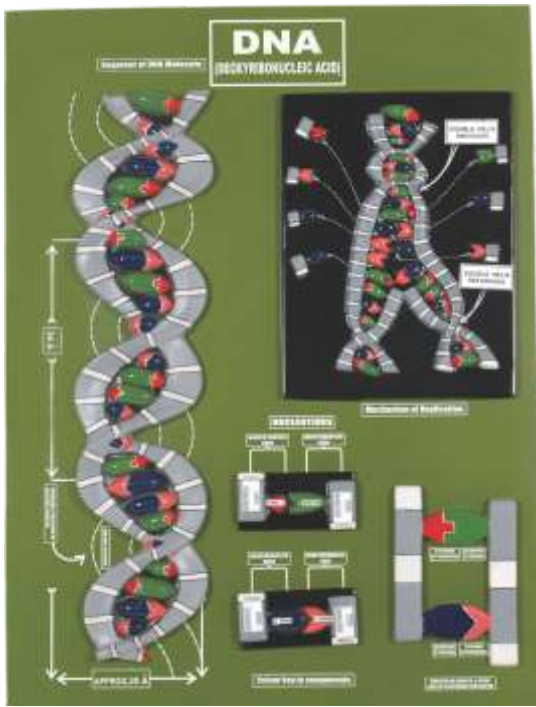
This kidney model shows: Kidney with adrenal gland. Renal and adrenal vessels. Upper portion of ureter. The anterior half of the kidney is removable, cortex medulla and vessels can be easily seen. Mounted on stand. Numbered with English Key card.



AM 10103
URINARY ORGANS KIDNEY WITH BLADDER

Natural size. Kidneys, ureters, adrenal glands and bladder with prostate as well as the large abdominal right kidney sectioned to show all anatomical details. Mounted on base. Numbered with English Key card.

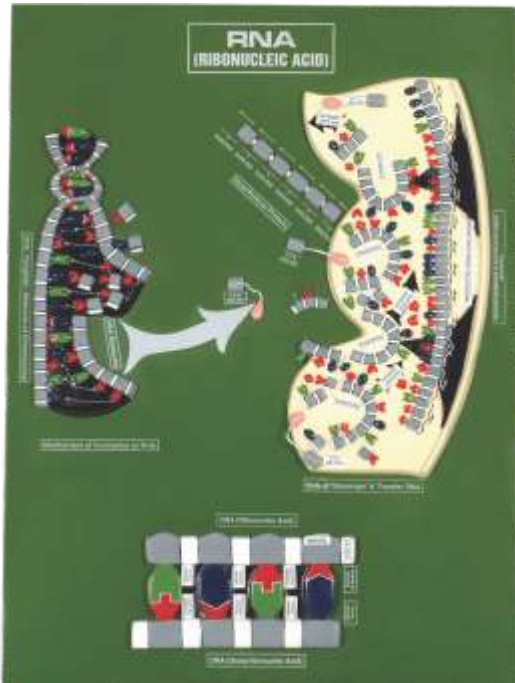




DEOXYRIBONUCLEIC ACID (DNA)

Model showing segment of DNA molecule mechanism of replication, to show the double helix coiling and reforming, nucleotides to show the molecule shapes and bonds and angles distorted. Mounted on board with numbered Key Card.

4080650 DNA



RIBONUCLEIC ACID (RNA)

Model showing RNA molecule, DNA template molecule of chromosome, role of messenger and transfer RNA colour key. Mounted on board with numbered Key Card.

4080700 RNA



DNA MOLECULE CONSTRUCTION KIT

To show students how exciting it is to build their own three dimensional DNA Structure with this colour coded and lettered plastic pieces on stand with numbered Key Card.

4080750 DNA Molecule Construction Kit **1**

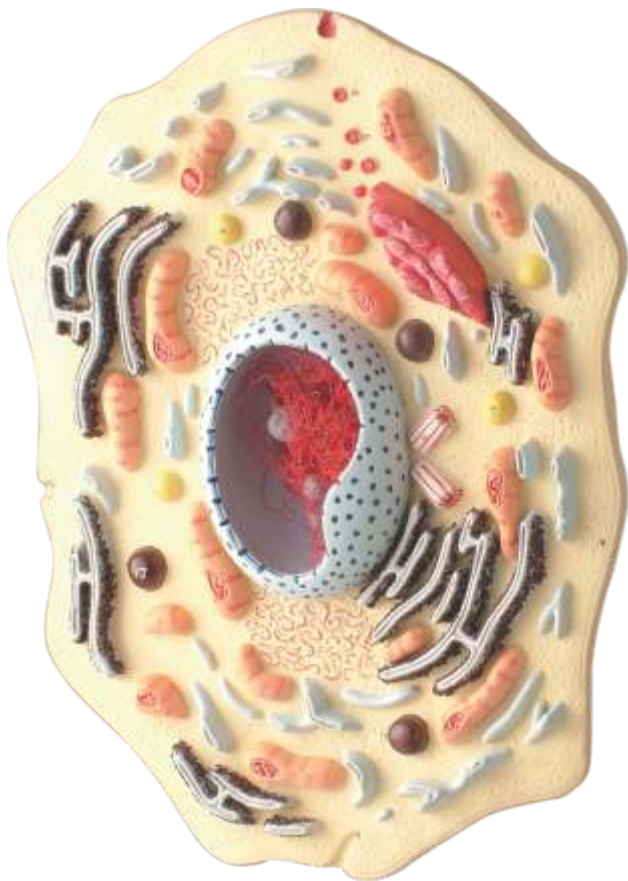
DNA MOLECULE CONSTRUCTION KIT

A self-assembly model kit of a 22 layer abstract double-helix model of deoxyribonucleic acid (DNA). The complete kit comprises

- 22 Nitrogenous base pairs comprising
 - 11 Thymine (Orange)
 - 11 Adenine (Blue)
 - 11 Guanine (Green)
 - 11 Cytosine (Yellow)
- 2 Polynucleotide side chains:
 - 44 Deoxyribose (Red)
 - 44 Phosphate (Purple)
- Stand
 - 1 light brown base, support rod.
 - 22 spacers & 1 white cap.

Supplied complete with instruction leaflet.

4080800 DNA Molecule Construction Kit **2**



ANIMAL CELL

This model, enlarged about 20,000 times, provides clear depiction of the latest up-to-date information of the delicate and complex structure of the animal cell. For teaching purposes, the components of the cell are very brightly coloured to bring out the high degree of segmentation of a cell. In addition to the organelle like nucleus, endoplasmatic reticulum, mitochondria, ribosomes, polysomes and Golgi apparatus, the model also shows centrioles, lysosomes and fat vacuoles. The presentation of the process of extrusion of a Golgi vesicle and pinocytic signs is shown by the cell dynamics. The single piece model is mounted on a stand with base and comes with numbered Key Card.

4080050 Animal Cell

ANIMAL CELL

A highly magnified representation of a typical and generalized animal cell, showing ultramicroscopic detail. The structures are shown in section and in relief. The model is mounted on a stand with numbered Key Card.



4080100 Animal Cell



ANIMAL CELL

A Highly magnified representation of a typical and generalized animal cell, showing ultramicroscopic detail. The structures are shown in section and in relief. The model is mounted on base with numbered Key Card.

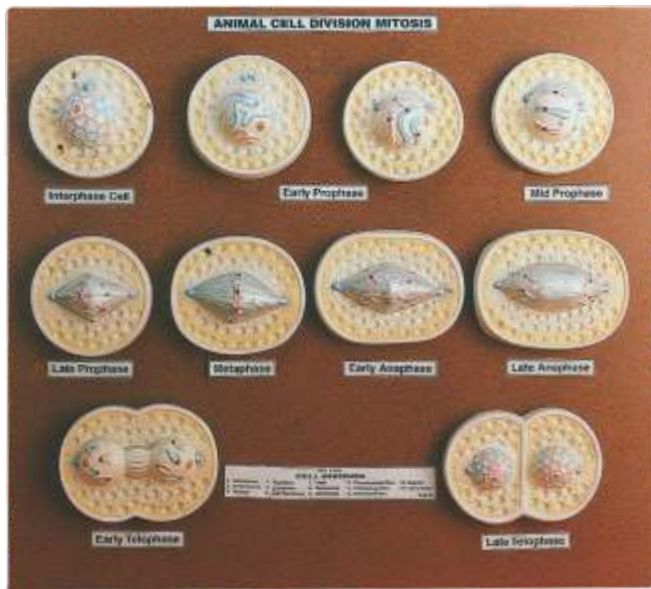
4080150 Animal Cell



TYPICAL ANIMAL CELL, ECONOMY MODEL

This inexpensive model is nicely illustrated to show the structure and organelles in a cross section of a typical animal cell the model features structural details. The model is on a base with numbered Key Card.

4080250 Typical Animal Cell, Economy Model



ANIMAL CELL DIVISION, MITOSIS

A set of 10 small models, enlarged in size showing cell division, different stages, which can be easily identified like, prophase, metaphase, anaphase, telophase and daughter cells. Mounted on board with numbered Key Card.

4080350 Animal Cell Division, Mitosis



ANIMAL CELL MITOSIS SET

It consists of eight separate robust models illustrating the process of mitotic cell division and its various phases or stages. The chromosomes are painted for easy identification of models. Supplied in sets only with numbered Key Card.

4080400 Animal Cell Mitosis Set



ANIMAL CELL MITOSIS SET

A highly informative and descriptive model set comprising a collection of 8 different models, mounted individually on stands. Each model is substantially enlarged many times, showing the different stages of cell division - late interphase, prophase, beginning metaphase, metaphase equatorial plane, anaphase migration of daughter chromosomes, late anaphase, telophase and daughter cells in the early interphase. With numbered Key Card.

4080450 Animal Cell Mitosis Set



ANIMAL CELL DIVISION, MEIOSIS

Clearly showing all stages of meiosis cell division in detail, beautifully coloured to show the details of chromosomes, as seen under the microscope. A set of 12 models, very useful for class-room, mounted on board with numbered Key Card.

4080500 Animal Cell Division, Meiosis

AMPHIOXUS CELL DIVISION, EQUAL

Comprising nine models mounted individually on stand with base and shows the various stages in cell division, the formation of the blastula and original membranes in one piece. Equal cell division and the formation of the nuclear membrane in the Branchiostoma Lanceolatum-Amphioxus, Lancelet, enlarged approximately 500 times. With numbered Key Card.

4080600 Amphioxus Cell Division, Equal

ANIMAL CELL MEIOSIS SET

Reproduction division is clearly explained with the series of colorful models enlarged about 2500^o. The set shows the formation of haploid cells prior to fertilization, restoration of the diploid state, as well as the formation of sex cells and sperm entering the egg. Permits the examination of each phase of cell division individually or collectively by the students to gain an overall perspective of the entire process. The set includes eight models, two explanatory introductory models, and an instruction manual describing the various stages of meiosis. Each model is individually mounted on its own stand with numbered Key Card.

4080550 Animal Cell Meiosis Set



BOTANICAL MODELS



BM 10005 TYPICAL FLOWER DISSECTIBLE

Representing a greatly enlarged idealized complete flower, this non-break resistant plastic model teaches angiosperm pollination and fertilization. Mounted on base. Numbered with English Key Card.

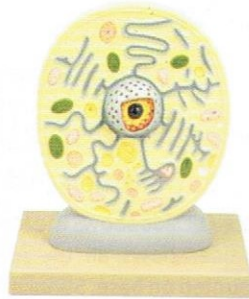
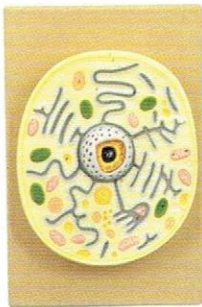


BM 10008 TYPICAL FLOWER V.S.

Showing V.S flower. Mounted on base. Numbered with English Key card.

BM 10010 PLANT CELL - 2 PARTS

Enlarged many times. Dissectible in 2 parts, showing the microscopic structures. One half is labeled with plant cell parts: mitochondria, smooth & rough ER, chloroplasts, Golgi apparatus, vacuole, ribosomes, cytoplasm, cell wall, and nucleus with nucleolus and chromatin. The other half has the same parts.



BM 10011 PLANT CELL - TYPICAL

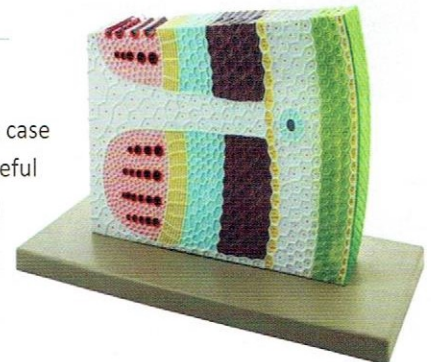
This hand painted model shows electron microscopic detail of a typical plant cell. It shows ectoplast, endoplast, tonoplast, vacuoles, nuclear structure, plastids, mitochondria and more. Mounted on a base. Numbered with a key card.

BM 10011a On Board

BM 10011b On Base

BM 10012 DICOT STEM ANATOMY T.S. & L.S.

Model shows the transverse and longitudinal section of a dicotyledonous stem in which case the cambium ring has been formed but no secondary growth has yet taken place. Very useful model for study of epidermis, cork layer, cork cambium, cortical parenchyma, starch sheath medullary rays, phloem, sieve plate, sieve tube, phloem parenchyma and inter fascicular cambium, xylem, pitted vessels pith etc. Mounted on base. Numbered with English key card.



BM 10013 DICOT STEM T.S.

Showing various tissues vascular bundles in transverse section of a dicot stem of sunflower. Mounted on base. Numbered with English Key card.



BM 10015 MONOCOT STEM ANATOMY T.S. OR L.S.

Exhibits the various tissues and scattered closed and collateral vascular bundles in transverse and longitudinal sections in maize. The large pitted vessels, spiral and annular vessels show the anatomy of monocot stem. On base. Supplied with English Key Card.





SPHYGMOMANOMETER

For measurement of systolic and diastolic blood pressure of human beings in metabolic rate. Mercury type manometer, manually operated instrument, includes inflatable cuff-arm with Velcro, inflating rubber-bulb bellow with non-return air valve having captive air bleed screw, all connected through flexible rubber tubing. Comes in a metal box.

4011750/1 Sphygmomanometer

4011750/2 Sphygmomanometer Digital

FOOD CALORIMETER

A glass jar incorporated with a inverted glass jar used as a combustion chamber open at both ends (205x100)mm (height x diameter). A copper spiral heat transfer tube vertically fitted with combustion chamber via. rubber stopper. A removable metallic top cover which allow to pass the stirrer and copper spiral tube with centered hole to insert the thermometer. A circular metallic disc of diameter 100mm with a boss head for mounting on a 13mm retort rod used as the floor of the combustion chamber. A pair of pillars carrying the low voltage igniter coil. A crucible that can be raised to the igniter coil with the help of the circular ring from the out side of the assembly apparatus. The whole assembly is fitted on a (200x130) mm rectangular base with a rod of 13mm diameter.



4011780 Food calorimeter

SIMPLE RESPIROMETER

For comparing rates of absorption or evolution of gases by small organisms during respiration. The apparatus comprises two stoppered glass boiling tubes connected by three way taps to either limbs of U-shaped graduated manometer. One tube holds the organisms and has a syringe for altering the level of liquid in the manometer during setting up. The other tube acts as a control thermo-barometer. CO₂ given off by the respiring organisms is absorbed by potassium hydroxide in the experimental chamber resulting in a change in the level of liquid in the manometer tube. Supplied complete with wire basket for supporting organisms and 1mL syringe.



4011800 Simple Respirometer

RESPIROMETER, SIMPLIFIED

This is a simplified form of Ganong's Respirometer, with an inverted 'U' tube in place of the respiration chamber. Length 460mm, U-tube diameter 20mm, pipette 1mL x 0.01mL.

4011820 Respirometer, Simplified



RESPIROMETER

For demonstrating and measuring the oxygen uptake in respiring material, germinating seeds. Bulbed glass vessel graduated 75 to 100 x 1ml. with leveling tube. Complete with stand.

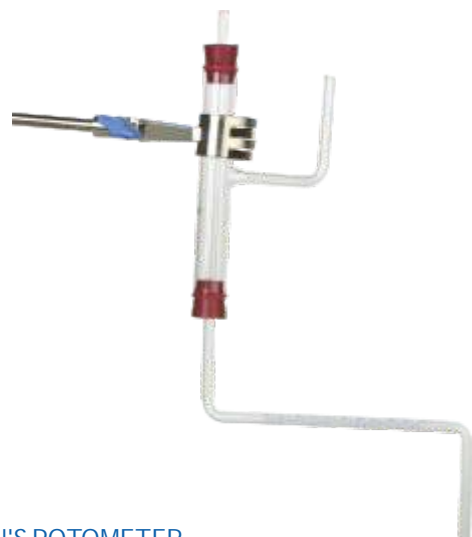
4011830 Respirometer



FARMER'S POTOMETER

Comprises a narrow bore bent glass tube clipped to a scale 0 to 30cm × 1mm and fitted by a rubber stopper in a wide mouth bottle. The stopper is also fitted with a dropping funnel and has a hole to take the stem of a plant.

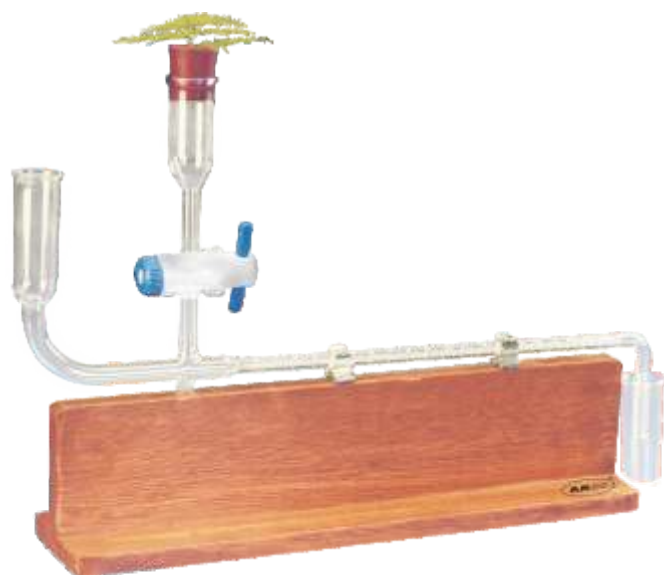
4012050 Farmer's Potometer



DARWIN'S POTOMETER

Comprises glass tube with upper end of straight limb closed with rubber stopper, lower end of limb with bored rubber stopper to take length of capillary tubing.

4012150 Darwin's Potometer



GANONG'S POTOMETER

Comprises a graduated, narrow bore, horizontal glass measuring tube with a vessel for a plant shoot at one end and having a vertical limb with a stopcock and a funnel fitted by a ground glass joint. Mounted on a wooden stand. For Demonstration, of transpiration rates and rates of water absorption by a cut shoot under various external conditions. A plant shoot is sealed into a stopper which fits the end tube, and the whole apparatus is filled with water, the open end of the capillary tube, which is graduated in millimeters, dipping into a beaker of water. The position of the air bubble may easily be adjusted by opening the glass stopcock to admit water from the central reservoir. The whole apparatus is mounted on a varnished wooden base by spring clips. Comprises a graduate, narrow bore, horizontal glass measuring tubes with a vessel for plant shot at one end and having a vertical limb with a Teflon stopcock and a funnel fitted by a ground glass joint. Height to top of reservoir 170mm, Diameter of reservoir 20mm Length, overall 320mm, Base 320×80mm(L × W), Capillary bore 1mm.

4012100/1 Ganong's Potometer with Glass Stop-cock

4012100/2 Ganong's Potometer with PTFE Key Stop-cock



PHOTOSYNTHESIS APPARATUS

For measuring and analyzing gas evolved by the plants such as Elodea. Comprise two syringes connected to a collecting tube through a 3-way tap. This arrangement enables the gas to be drawn along the capillary tube by one syringe for analysis. The apparatus is mounted on a back board about 240 x 100mm, capillary bore 1 mm.

4012200 Photosynthesis Apparatus

OSMOSIS APPARATUS

This apparatus is designed for exploring the phenomena of osmosis and concept of osmotic pressure at elementary levels. Comprises a semi-permeable membrane sealing the open mouth of thisle funnel having an indicator tube, which can be positioned in a reservoir. Supplied complete with dropping pipette.

4012250 Osmosis Apparatus



BM 10018 MONOCOT STEM

This model exhibits the various tissues and the scattered closed and collateral vascular bundles in transverse and longitudinal sections in maize. The large pitted vessels, spiral, & annular vessels show the anatomy of monocot stem. Mounted on base. Numbered with English Key Card.

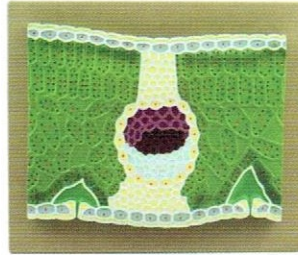


BM 10019 MONOCOT STEM T.S.

Showing various tissues vascular bundles in transverse section of a monocot stem of maize. Mounted on base. Numbered with English Key card.

BM 10020 DICOT LEAF V.S.

This model shows details of a typical mesophytic leaf. Mounted on a base. Numbered with English key card.



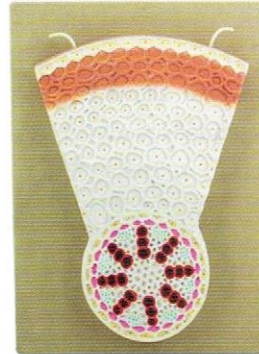
BM 10023 MONOCOT LEAF V.S.

Showing details of internal structure of typical monocot leaf. Mounted on a base. Numbered with English key card.



BM 10025 DICOT ROOT T.S.

This model shows a typical dicot root with complete internal details. Mounted on board. Numbered with English Key card.



BM 10028 MONOCOT ROOT T.S.

Showing complete internal details of root. Mounted on base. Supplied with English Key Card.

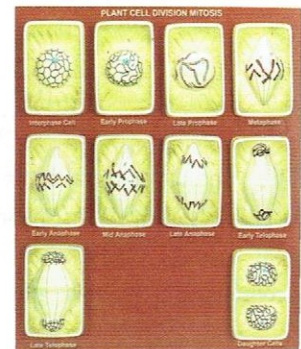
BM 10030 ROOT TIP ON STAND

This model of root tip shows the structure of a typical monocot root in a cross and longitudinal section, including zone of distention cells, meristematic zone and zone of primary structure. Mounted on stand. Numbered with English Key Card.



BM 10035 PLANT CELL DIVISION MITOSIS

This set of models shows all the stages of plant mitosis including a detailed look at interphase, prophase, metaphase, anaphase, and telophase, as well as the resulting daughter cells. Mounted on a base. Numbered with English key card.



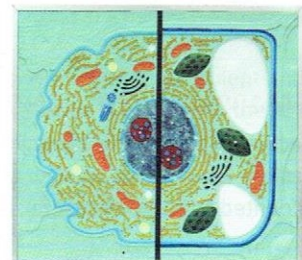
BM 10038 PLANT CELL DIVISION MEIOSIS

Set of 16, an entirely new designed model according to recent concept of chromosome changes from the resting nucleus to the formation of 4 daughter cells complete set. Mounted on base. Numbered with English Key Card.



BM 10040 ULTRASTRUCTURE OF PLANT & ANIMAL

This model is suitable for teaching the internal structures and differences between animal cell & plant cell. Numbered with English Key Card.



CHARTS:

<u>Reference</u>	<u>Description</u>
2004	Heart and Blood Vessels, laminated chart, 3B Germany
2008	Torso, laminated chart, 3B Germany
2012/1	Eye, anatomical view, laminated chart, 3B Germany
2016	Normal dentition, laminated chart, 3B Germany
2022	Liver, Laminated chart, 3B Germany
2030	Cell-Tissue-Organ, laminated chart, 3B Germany
2031/2	Blood II: development of blood-cells, laminated chart, 3B Germany
2046	Endocrine glands, laminated chart, 3B Germany
2050	Bone structure, laminated chart, 3B Germany
2052	Musculature structure, Laminated chart, 3B Germany
2053/1	Heart I, Laminated chart, 3B Germany
2053/2	Heart II, Laminated chart, 3B Germany
2635	Periodic Table Of Elements,(75x100 Cm)
2700.1	Ultra structure of animal & plant cells, Waterproof Chart
2700.2	Ultrastructure of animal cells, Waterproof chart
2700.3	Ultrastructure of plant cells, Waterproof chart
2701.1	Mitosis in animals, Waterproof chart
2705.1	Meiosis in animals, Waterproof chart
2707.1	D.N.A., animal, Waterproof chart
2709.1	R.N.A., animal, Waterproof chart
2776.1	Mitosis in plants, Waterproof chart
2780.1	Meiosis in plants, Waterproof chart
2785.1	D.N.A., plant, Waterproof chart
2852.1	Spyrogyra, Waterproof rexine
2856.1	Bacteria forms, Waterproof chart
2862.1	Human Skeleton, Waterproof chart
2867.1	Human digestive system, Waterproof chart
2870.1	Human nervous system, Waterproof chart
2875.1	Human circulatory system, Waterproof chart
2877.1	Human excretory system, Waterproof chart
2878.1	Human respiratory system, Waterproof chart
2880.1	Endocrine system chart
2884.1	Human lymphatic system, Waterproof chart
2887.1	Neurone, waterproof chart
2902.1	Human blood cells, chart
2922.1	The brain, chart
2928.1	The spinal cord, chart
2958.1	Genital organs of female, chart
9750	Menstrual Cycle and implantation of ovum chart, 3B Germany

Microscope cameras and USB microscopes

If you already have a microscope and want to make it digital, a separate camera is a good solution. Simply replace the eyepiece with the camera and connect it to a PC.

Alternatively, you can use a USB microscope that is a small stand-alone camera used for low magnifications. It is therefore ideal for macro pictures of leaves, insects etc.



Microscope camera, Celestron, 2 MP

Basic microscope camera with 2 MP resolution. Connects to PC via USB 2.0 cable. Works with both microscopes and stereomicroscopes by replacing the eyepiece. Fits eyepiece tubes with a diameter of 23 mm or 30 mm (adapter included).

Takes still pictures with 2 MP resolution and shows a live picture with low resolution (640x480 pixels). The camera is therefore mostly suited for student use and not demonstration via projectors. For that purpose a camera with higher live resolution is needed (e.g. 078115).

Comes with a CD-rom with software for Windows PC.

078116 Microscope camera, Celestron, 2 MP



WiFi microscope camera, 5 MP

This WiFi microscope camera can connect to a microscope in several ways. Either via the microscopes CCD adapter with C-mount or more commonly via an adapter that fits into the eyepiece tube instead of the eyepiece. The camera has a resolution of 5 MP (15 fps) and can connect to a computer via a USB 2.0 cable or to a smartphone/iPad via WiFi. The app Ucam is available for both Android and iOS and a CD-rom holds the PC software for cabled use. Equipped with a lithium battery that can be charged with the accompanying charger or via the USB cable when connected to a PC.

Resolution: 2592 x 1944 pixels
 Framerate: 15 fps @ 5 MP
 40 fps @ 1.2 MP
 Chip: 1/2.5" CMOS
 Adapters: 30 mm, 30.5 mm and 23.2 mm

078115 WiFi microscope camera, 5 MP



USB microscope 5 MP

This USB microscope is very easy to use. Just plug it in a USB port on your PC and place it over or on the object you want to look at. It features built-in LED light (adjustable), a focus mechanism and furthermore comes with a nice little stand that the USB microscope fits into. It has two magnifications, when it is placed on a surface (e.g. on a leaf), 5 MP resolution and comes with software for Windows and Mac.

078106 USB microscope 5 MP



Model 1122019 Microscope, Monocular 1600x, 10x eyepiece with pointer

- * Modern triangular base
- * Finished in easy maintained finish
- * LED Lamp with dimmer switch
- * 10x WF Eyepiece with pointer
- * 16x WF Eyepiece
- * 4/10/40/100x (Oil immersion) Objectives
- * Coarse and graduated fine focus adjustment
- * Iris Diaphragm and 1.25 abbe Condenser
- * Mechanical stage
- * On/Off switch
- * Slip clutch Standard
- * VAC with mains lead and plug
- * Triangular base for stability



BINOCULAR LABORATORY MICROSCOPE, MODEL HL-CMS-1000

It is a versatile professional microscope with excellent optical system. Economically priced to meet the requirement of medical, pathological and other all other biological laboratories. Binocular head inclined at 45° and rotatable with 360° with highest quality prisms to ensure accurate collimation for strain free observation. Interpupillary and dioptic adjustment provided. Quadruple revolving nose piece with positive centering and click stop. Coaxial graduated, mechanical stage having precision (x) and (y) movement. Coarse and fine focusing and system 1.25 N.A. Abbe's condenser with iris diaphragm with blue filter holder provided. Adjustable safety stopper prevents damage to slide and objective. Built-in 20W halogen bulb is provided with solid state transformer with variable light control, with on/off switch. Operates on 220V AC 50 Hz. Supplied with Vinyl cover, duster, cleaning brush in wooden carrying cabinet.

Eye Piece : WF 10×, Hug. 5× or Hug. 15× (Paired)
 Objectives : 4×, 10×, 45× (SL) and 100× (SL) oil immersion.

4020750 Binocular Laboratory Microscope, Model HL-CMS-1000

RESEARCH BINOCULAR MICROSCOPE, MODEL CXL-2200 (photo Not Available)

This Research Binocular Microscope is the latest addition to this range with up to date and latest features for use at college and university levels. All features and construction similar to Model CXL-2000 (Cat No. 4020800) but all optics as per DIN standards.

Optical Combinations

- High eye point compensating wide field eye pieces. HKW 10×, HKW 15× or WF 5× (any two pair).
- Achromatic objectives duly parfocal. 4×, 10×, 45× (SL), 100× (SL) oil immersion.

4020850 Research Binocular Microscope, Model CXL-2200

RESEARCH BINOCULAR MICROSCOPE, MODEL CXL-2000

This advanced Laboratory microscope is designed specifically to increase operational convenience by combining innovating designed and high performance optics. It surpasses any other microscope of its class. Millennium series has met the challenges of providing trouble free functioning. This series of microscopes incorporating superior optics and system flexibility designed to meet the requirement of Pathologists and Biologists in laboratories and hospitals. The objective and WF eyepieces help you for identifying specimens faster and easier. The sharpness of optics is enhanced by 20W halogen illumination system with continuous variable intensity control. Standard size, binocular inclined head rotatable to 360°. High point compensating WF eyepieces.

Features

- Coaxial focusing system with coaxial graduated mechanical stage.
- Ball bearing guide ways.
- Full size height 43cm.
- Binocular inclined head, rotatable through 360°.
- Ball bearing quadruple nose piece. Built in illumination 6V, 20W halogen lamp controlled through SMPS.
- Abbe's condenser NA 1.25 with iris diaphragm and blue filter.
- Complete in wooden carrying nicely polished cabinet.

Optical Combinations

- High eye point compensating wide field eye pieces. HKW 10×, HKW 15× or WF 5× (any two pair).
- Achromatic objectives duly parfocal. 4×, 10×, 45× (SL), 100× (SL) oil immersion.

OPTIONAL

- Trinocular/Monocular Head
- CCTV Attachment
- Phase contrast attachment
- Din standard objectives
- Polarizing attachment
- Dark field condenser

4020800 Research Binocular Microscope Model CXL-2000





OBJECTIVES

Achromatic, interchangeable and parfocal.
Magnification N.A.

4021800/1	4× / 5×	0.10
4021800/2	10×	0.25
4021800/3	20×	0.40
4021800/4	40× / 45×	0.65 (SL)
4021800/5	60×	0.80 (SL)
4021800/6	100×	1.30 (SL)
4021800/7	4×	DIN standard
4021800/8	10×	DIN standard
4021800/9	45×	DIN standard
4021800/10	100×	DIN standard



EYE PIECES

4021850/1	5× / 6× Hug
4021850/2	10× Hug.
4021850/3	15× Hug.
4021850/4	10× WF
4021850/5	15× WF

DIAPHRAGM

Diameter 50mm (Approx.)

4021900 Diaphragm

POINTER EYE PIECES

With movable pointer for indicating details of a specimen. (Fixed pointer optional)

4021950/1	5× Hug.
4021950/2	10× Hug
4021950/3	15× Hug.

STAGE CLIPS

Will fit all series of Microscopes.

4022100 Stage Clips



INCLINED TUBE

For all our standard microscopes.

4022000/1 Inclined tube spare

4022000/2 With new square design.

4022000/3 Binocular heads for all our standard microscopes.



REFLECTOR

Diameter 50mm, plano-concave optically true mounted in frame.

4022050 Reflector

CONDENSER

An Abbe condenser mounted with adjustable Iris Diaphragm. It is recommended for use with higher magnification objectives having N.A. 1.25.

4022150 Condenser



MECHANICAL STAGE

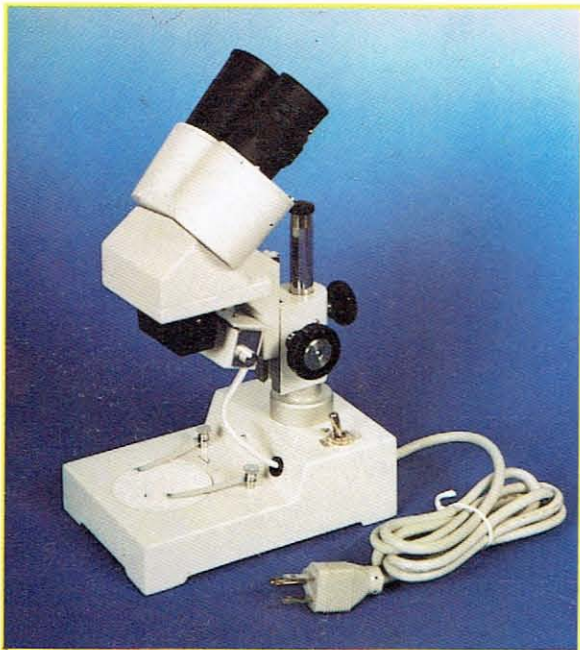
4022200/1 Attachable to any standard microscope by means of 2 clamp jaws set at 90° to each other. Graduated movements are adjusted by rack and pinion mechanism and have vernier scales. Movement ranges 40 to 115mm × 1.0mm and 0 to 45mm × 1.0mm. Vernier reads to 0.1mm.

4022200/2 Same as above but new improved design



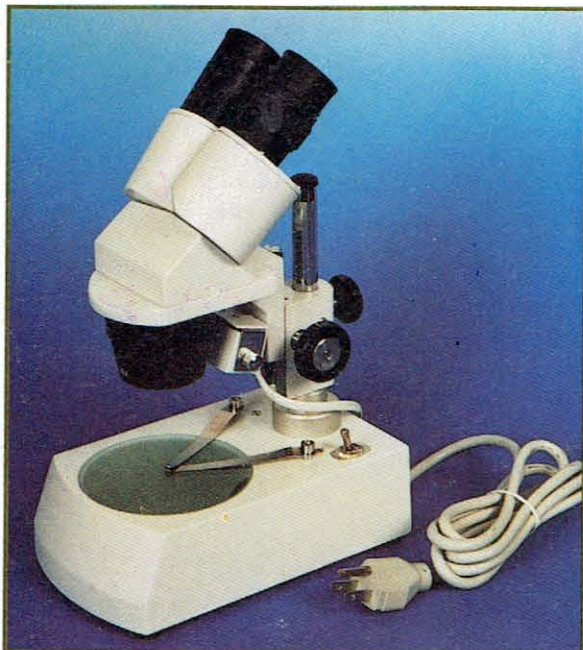
STEREO MICROSCOPE S-10 SERIES

Model	Objective	Eyepiece	Stand
S-10-P	2X	WF10X	No light
S-10-L	2X	WF10X	Incident
S-10-2L	2X	WF10X	Incident & Transmitted
Optional parts : Objective : 1X, 3X, 4X, 6X. Eyepiece : 5X, 15X, 20X.			



STEREO MICROSCOPE S-20 SERIES

Model	Objective	Eyepiece	Stand
S-20-P	2X	WF10X	No light
S-20-L	2X	WF10X	Incident
S-20-2L	2X	WF10X	Incident & Transmitted
Optional parts : Objective : 1X, 3X, 4X, 6X. Eyepiece : 5X, 15X, 20X.			

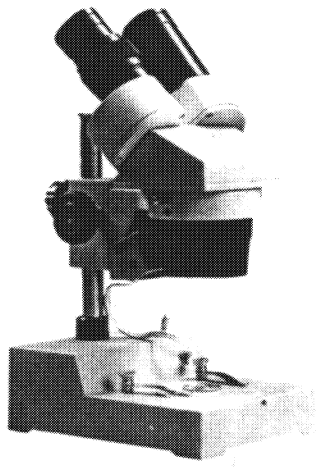


STEREO MICROSCOPE ST-30 SERIES

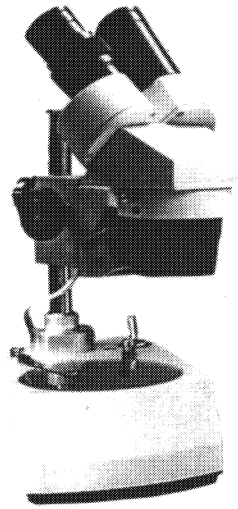
Model	Objective	Eyepiece	Stand
ST-30-P	2X-4X	WF10X	No light
ST-30-L	2X-4X	WF10X	Incident
ST-30-2L	2X-4X	WF10X	Incident & Transmitted
Optional parts : Objective : 1X and 2X, 1X and 3X Eyepiece : 5X, 15X, 20X.			

XTD 型體視顯微鏡

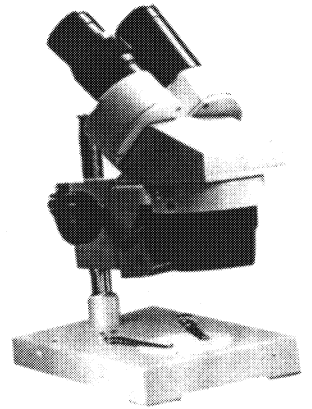
Stereomicroscope XTD



XTD-B



XTD-C



XTD-A

用途

Application

適用生物、醫學、礦物標本研究、精密零件裝配以及貴重飾品檢驗。
可快速更換物鏡倍數，機身可 360° 旋轉。

It is suitable for researching biological medical and mining specimen, inspecting or assembly of precision parts and treasure decoration.

It is fitted with reflecting light source. Magnification of objectives can be easily adjusted by rotation ring, The body can revolve.

技術規格 Specifications

型號 Model	廣視場 目鏡 Eyepiece	物鏡 Objective	底座 Base	照明 Illumination	工作距離 Working distance
XTD101A	10×	1× 2×	平底座 Plane base		88mm
XTD101B	10×	1× 2×	臺階座 Step base	上照明 Reflective illumination	88mm
XTD101C	10×	1× 2×	高平座 High base	上下照明 Reflective and trans- missive illumination	88mm
XTD102A	10×	1× 3×	平底座 Plane base		66mm
XTD102B	10×	1× 3×	臺階座 Step base	上照明 Reflective illumination	66mm
XTD102C	10×	1× 3×	高平座 High base	上下照明 Reflective and trans- missive illumination	66mm
XTD103A	10×	2× 4×	平底座 Plane base		88mm
XTD103B	10×	2× 4×	臺階座 Step base	上照明 Reflective illumination	88mm
XTD103C	10×	2×, 4×	高平座 High base	上下照明 Reflective and trans- missive illumination	88mm

12V/10W



DISSECTING SET

Biological dissecting instruments set consisting of 14 instruments, all made of stainless steel. The set contains the following instruments:

- 2 Scissors
- 2 Forceps
- 4 Needles
- 1 Scalpel
- 1 BP handle with blade
- 1 Razor
- 1 Magnifying glass
- 1 Chain and hook
- 1 Blow pipe

4010350/1 Set contained in a superior quality, velvet lined rexine pouch bag

4010350/2 Set contained in simple and economical wallet type canvas pouch bag

Other ranges are also available on specific request.



DISSECTING SET, SIMPLE

Biological dissecting instruments set consisting of 7 instruments housed in velvet lined plastic pouch bag. The set contains the following instruments.

- 2 Scissors
- 2 Forceps
- 1 Needle pointed
- 1 BP handle with blade
- 1 Needle, plastic handle.

4010400 Dissecting Set, Simple

Other combinations are also available on specific request.



DISSECTING SET

Biological dissecting instruments set comprising 20 instruments for more detailed dissections. The instruments housed in a velvet-lined superior quality rexine cover pouch bag. The set contains the following instruments.

4010450 Set of 20 1

- 2 Scissors
- 2 Forceps
- 4 Needles
- 1 Scalpel
- 1 BP handle with blade
- 1 Razor
- 1 Watch glass
- 1 Magnifying Glass
- 1 Glass Slide
- 1 Chain and hook
- 1 Cover slip
- 1 Blow pipe
- 1 Needle plastic handle
- 1 Dropper glass
- 1 Brush

4011410 Set of 10 2

- 2 Scissors
- 2 Forceps
- 1 Needles
- 1 Scalpel
- 1 BP handle with blade
- 1 Blood Lense
- 1 Needle plastic handle
- 1 Bone cutter

Other combinations are also available on specific request.





REFLEX HAMMER

A metallic handle is fitted with a rubber head to test the reflexes in a human body. Handle is specially designed for better gripping.

4011510 Reflex Hammer



DISSECTING DISHES, ALUMINIUM

Made from aluminium sheet. Rectangular, with flanged edges. Complete with wax. Sizes available are (bottom - length \times width \times depth):

A. without wax B. with wax

4011550/1 250 \times 200 \times 60mm
4011550/2 300 \times 250 \times 75mm



DISSECTING DISHES, STAINLESS STEEL

Sizes available are:

A. without wax B. with wax

4011600/1 10 \times 8 inches
4011600/2 12 \times 8 inches
4011600/3 10 \times 12 inches



WAX TRAY

Made of aluminium tray. Wax layered corners for holding wax.

Sizes available are:

4011650/1 250mm \times 200 mm
4011650/2 300mm \times 250 mm

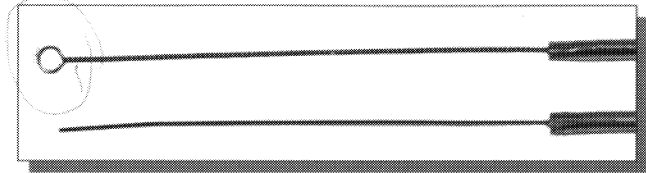


DISSECTING TRAY

Made of GI sheet, enamel size 250 \times 300mm fitted with corners for holding wax.

4011700/1 Dissection Tray with wax layered bottom surface
4011700/2 Dissection Tray without wax layered bottom surface

Inoculating Needle & Loop

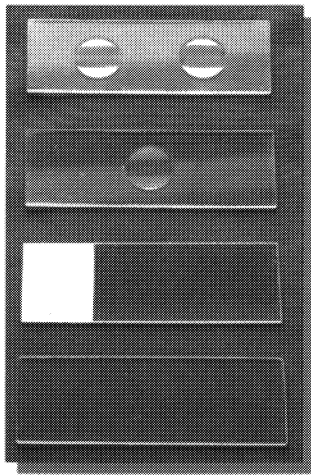


These 3" long inoculating needles and loops are made of 24 gauge nickel-chrome wire and mounted in 8" long aluminum handles. The needles are used to select tiny colonies, and the loops are used to pick up broth. Individually packaged in plastic storage tubes.

Catalog # Description

P23511	Inoculating Needle, Nickel-Chrome, in aluminum handle
P23512	Inoculating Loop, Nickel-Chrome, in aluminum handle

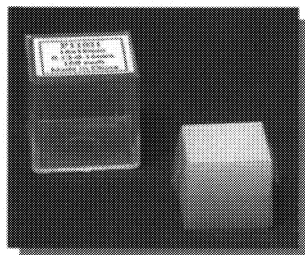
Microscope Slides



High quality glass with uniform thickness and no bubbles or striations. The edges are ground smooth.

Catalog#	Description	Specification
P11011	Plain	1" x 3", 1.0 - 1.2mm, pk/72
P11013	Frosted end	1" x 3", 1.0 - 1.2mm, pk/72
P11015	Single concavity	1" x 3", 1.2 - 1.3mm, pk/12
P11017	Double concavity	1" x 3", 1.2 - 1.3mm, pk/12

Cover Glass



High quality glass with uniform thickness. Housed in a durable plastic box.

Catalog#	Dimension	Thickness	Qty.
P11021	18X18mm	#1	100 each
P11022	22x22mm	#1	100 each
P11023	25x25mm	#1	100 each
P11024	18X18mm	#2	80 each
P11025	22x22mm	#2	80 each
P11026	25x25mm	#2	80 each
P11032	22x40mm	#1	100 each
P11034	24x40mm	#1	100 each
P11035	22x40mm	#2	50 each
P11036	24x40mm	#2	50 each

PREPARED SLIDES (sold per piece):

3630	Prepared slide, Dicot Stem T.s.
3632	Prepared slide, Dicot Root T.s.
3634	Prepared slide, Dicot Leaf T.s.
3639	Prepared slide, Botany, Chloroplast
3640.1	Prepared slide, animal cell mitosis
3640.2	Prepared slide, animal cell meiosis
3642.1	Prepared slide, plant cell mitosis
3642.2	Prepared slide, plant cell meiosis
3644	Prepared slide, single cell
3646	Prepared slide, nerve cell
BB02	Prepared slide, Yeast Smear
BB03	Prepared slide, Penicillium. W.M.
BB04	Prepared slide, Aspergillus. W.M.
BM01	Prepared slide, Lichen. Sec.
BM03	Prepared slide, Moss Protonema and BUD. W.M.
BM04	Prepared slide, Moss Antheridium. W.M.
BM05	Prepared slide, Moss Archegonium w.M.
BM07	Prepared slide, Moss Capsule. L.S. (Showing spore maturation)
BM08	Prepared slide, Fern Leaf. C.S.
BR05	Prepared slide, Monocot and Dicot Roots. C.S. Together on one glass
BS08	Prepared slide, Monocot and Dicot Stem. C.S. Corn & Sunflower on 1 glass
G02	Prepared slide, Human Chromosomes. Male, 46, XY.
G03	Prepared slide, Human Chromosomes. Female, 46, XX.
HC06	Prepared slide, Human Blood Smear
HC06.1	Prepared slide, W.B.C
HC06.2	Prepared slide, R.B.C
HE01	Prepared slide, Human Mouth Epithelia Cell. W.M.
HE03	Prepared slide, Simple Squamous Epithelium. W.M.
HE04	Prepared slide, Stratified Squamous Epithelium. Sec.
HN04	Prepared slide, Spinal Cord. Rabbit. C.S.
HO10	Prepared slide, Rabbit Pancreas. Sec. Showing Mitochondria
MB08	Prepared slide, comparative hairs (human, sheep & cat) W.M.
MB09	Prepared slide, Pollen W.M.
MT14816	Prepared slide, Botany: green algae.
ZAR17	Prepared slide, Drosophila Life Cycle. W.M.
ZAR43	Prepared slide, Grasshopper Wing. W.M.
ZC01	Prepared slide, Hydra. W.M.
ZC02	Prepared slide, Hydra. L.S.
ZC03	Prepared slide, Hydra. C.S.
ZP01	Prepared slide, Ameoba Proteus. W.M.

Tough, Reliable and Accurate

Extech infrared thermometers provide non-contact, point-and-shoot temperature measurements ensuring safety and accuracy on the job. With unrivaled distance ratios, temperature ranges, and laser targeting options, Extech offers IR thermometers for every application.



IR100 446°F (230°C), 1:1, Mini IR Thermometer

Mini size design for the ultimate convenience and portability

- Measures non-contact surface temperature up to 446°F (230°C)
- Economical mini size design for convenience
- Automatic Data Hold when measure button is released
- Max Hold or Min Hold
- Lock feature for continuous scanning
- Fixed 0.95 emissivity covers 90% of surface applications
- Auto power off
- Complete with CR2032 3V battery



IR201 518°F (270°C), 6:1, Pocket Laser IR Thermometer

Handy troubleshooting thermometer with laser pointer

- Measures non-contact surface temperature up to 518°F (270°C)
- Adjustable high alarm
- Economical small pocket size design for convenience
- Built-in laser pointer identifies target area
- Data Hold and Min/Max Hold
- Lock mode for continuous scanning
- Auto power off
- Adjustable emissivity for better accuracy on different surfaces
- Complete with two AAA batteries and pouch case

IR Thermometers

Choose the best InfraRed Thermometer to fit your application needs by selecting the proper measurement range, field of view, resolution, and accuracy. Applications include industrial plant maintenance, HVAC/R, electrical contracting, boiler/steam systems, automotive, foodservice, laboratory, metallurgy and more.

SPECIFICATIONS	IR100	IR201 ^N
IR Temperature (Non-contact)	-34 to 446°F (-33 to 230°C)	-4 to 518°F (-20 to 270°C)
Basic Accuracy	±(2.5%rdg) or ±5°F/2.5°C	±(2.5%rdg±3°F/2°C)
Max. Resolution	0.1°F/°C	0.1°F/°C
Emissivity	0.95 fixed	0.10 to 1.0 adjustable
Field of view (Distance to Target)	1:1	6:1
CE approved	Yes	Yes
Dimensions	3x1.6x0.7" (75x40x18mm)	3.7x2x1" (94x51x25mm)
Weight	1.5oz (43g)	2.7oz (76g)
Warranty	1 year	1 year

401012 Outdoor Temperature Alarm



Audible Alarm alerts user when Temperature exceeds the setpoints

- Displays indoor/outdoor temperature
- Single or Dual point audible alarm (external sensor)
- Range: -58.0 to 158.0°F
Basic accuracy: $\pm 1.8^\circ\text{F}$ accuracy
Resolution: 0.1°F
- Dimensions: 2.75x2.75" (70x70mm); Weight: 3oz (85g)
- 1 year warranty
- Complete with internal plus 10ft (3m) weatherproof temperature sensor with adhesive backing, stand, one AAA battery, and screws for wall mounting

ORDERING

401012 Outdoor Temperature Alarm

401014 Indoor/Outdoor Thermometer



Built-in memory stores Minimum and Maximum Temperature readings

- Large LCD displays 1" (25mm) digits for indoor/outdoor temperature
- Indoor Range: 14 to 140°F (-10 to 60°C)
Outdoor Range: -58 to 158°F (-50 to 70°C)
Basic accuracy: $\pm 1.8^\circ\text{F} / 1^\circ\text{C}$
Resolution: $0.1^\circ\text{F}/^\circ\text{C}$
- Dimensions: 4.4x4x0.9" (112x102x22mm); Weight: 6.5oz (186g)
- 1 year warranty
- Complete with weatherproof temperature sensor with 9.6ft (3m) thin cable, stand, AAA battery, and wall mounting bracket

ORDERING

401014 Big Digit Indoor/Outdoor Thermometer

39240 Waterproof Thermometer



Pocket-size with MAX/MIN recording

- 2.75" (70mm) Stainless steel stem
- Data Hold and Auto power off
- Range: -40 to 392°F (-40 to 200°C)
Basic accuracy: $\pm 2^\circ\text{F}/1^\circ\text{C}$
Resolution: $0.1^\circ/1^\circ$ resolution
- Dimensions: 5.9x0.8x0.7" (150x20x18mm); Weight: 0.7oz (20g)
- 1 year warranty
- Complete with one LR44 button battery and protective cover

ORDERING

39240 Waterproof Thermometer

392050 Penetration Dial Thermometer

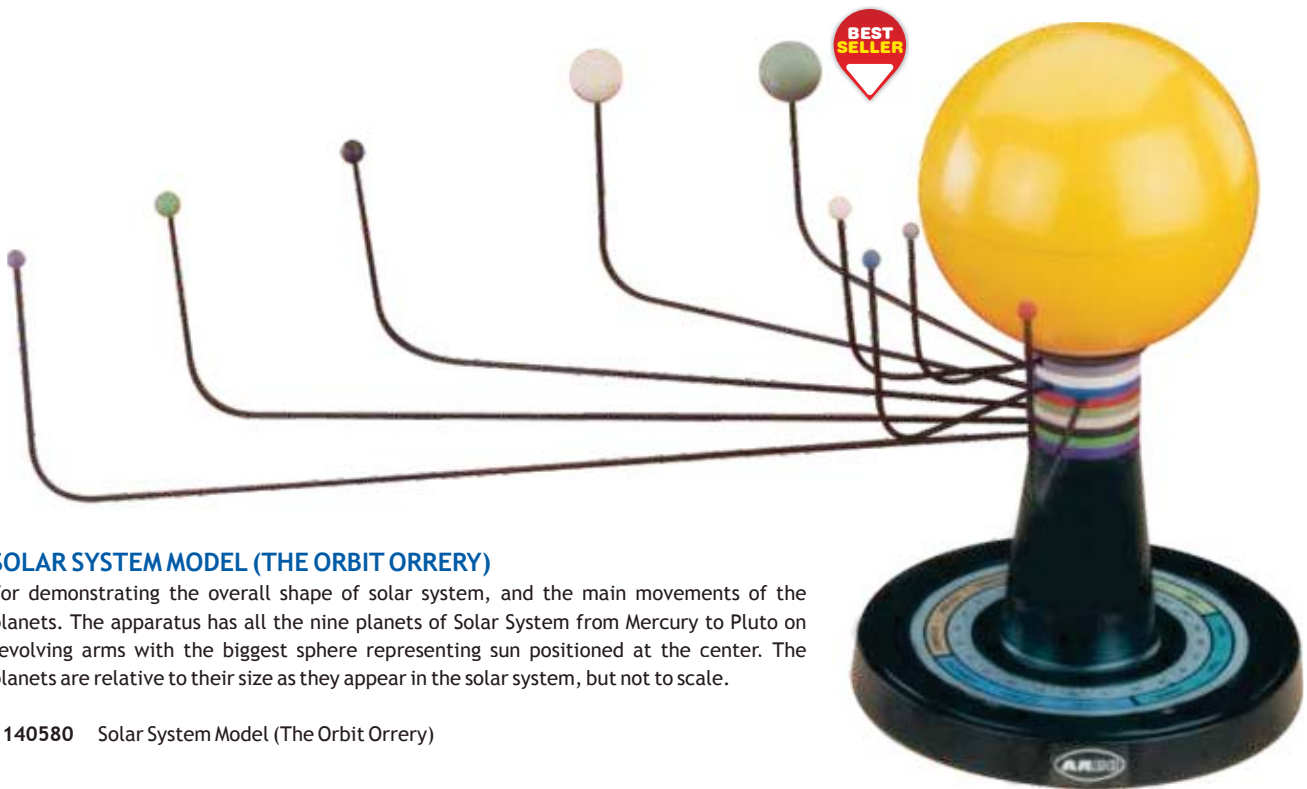


Sharp stainless steel probe measures temperature in air, liquids, and semi-solids

- 5" (130mm) stainless steel probe with 2" (54mm) dial
- Range: -58 to 302°F (-50 to 150°C)
Basic accuracy: $\pm 2^\circ\text{F}/1^\circ\text{C}$
Resolution: $0.1^\circ/1^\circ$ resolution
- ON/OFF switch saves battery life
- Auto Power off after 1 hour
- Weight: 1oz (29g)
- 1 year warranty
- Complete with 1.5V LR44 battery

ORDERING

392050 Penetration Dial Thermometer



SOLAR SYSTEM MODEL (THE ORBIT ORRERY)

For demonstrating the overall shape of solar system, and the main movements of the planets. The apparatus has all the nine planets of Solar System from Mercury to Pluto on revolving arms with the biggest sphere representing sun positioned at the center. The planets are relative to their size as they appear in the solar system, but not to scale.

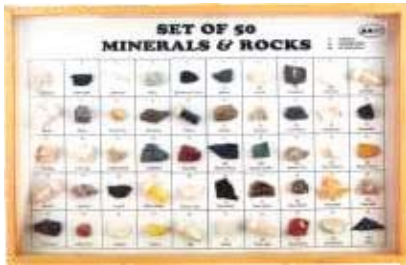
1140580 Solar System Model (The Orbit Orrery)



ELEMENTARY PLANETARIUM

A durable, economical, simplified, hand-operated model that demonstrates the orbital relationship of movement of Sun, Earth and Moon throughout the year and shows solar, lunar and annular eclipses, moon phases, and seasons etc. The sun sphere is lighted with the beam always pointed towards the Earth to show moon shadow and display twilight zones on the earth sphere. A chain drive keeps the North-pole pointed towards the Polaris.

1140620 Elementary Planetarium



ROCKS AND MINERAL COLLECTION SET

A quality collection of various rocks and mineral, nicely packed. Each specimen properly labeled and numbered.

1140520/1 Set of 50 Specimens, in Wooden Showcase: Set of 50 specimens, packed in transparent plastic envelopes and contained in a partitioned wooden showcase with lid. Specimens may be taken out for close physical examination.

1140520/2 Set of 50 specimens, in Wooden Tray: Set of 50 specimens properly labeled in a partitioned wooden tray with a glass front.



METALS COLLECTION SET

A collection of 12 different types of metals mounted in a tray with glass front. All specimens properly labeled and numbered.

1140540 Metals Collection Set



FOSSILS COLLECTION SET

A collection of fossils and fossil casts selected for schools students. Each specimen properly labeled and numbered. Supplied in a partitioned wooden case. The set contains

- A. Plantae, Pteridosperm, Carboniferous
- B. Mollusca, Lamellibranch, Recent
- C. Mollusca, Gastropod, Tertiary
- D. Mollusca, Ammonite, Jurassic
- E. Mollusca, Belemnite, Jurassic
- F. Brachiopoda, Brachiopod, Jurassic
- G. Coelenterata, Coral, Carboniferous
- H. Coelenterata, Graptolite, Ordovician
- I. Echinodermata, Crinoid, Carboniferous
- J. Echinodermata, Echinoid, Jurassic
- K. Arthropoda, Trilobite, Silurian
- L. Vertebrata, Shark's Tooth, Miocene

1140560 Fossils Collection Set



PHYSICAL RELIEF GLOBE

A twelve inches raised relief globe combined with political features, makes it useful for showing the effects vis-à-vis natural geographical boundaries. Contains realistic portrayal of the Earth's surface with colouring depicting natural vegetation, including areas, where the natural environment has given way to man's cultivation and urbanization. The physical relief details are clearly printed. Mounted on pivots in half-meridian frame on a stable base.

1140660 Physical Relief Globe



PHYSICAL / POLITICAL GLOBE

The physical details of the world are clearly visible, but on switching ON the light, the political details become visible. The bulb is easily replaceable. Mounted on pivots in half-meridian frame on a stable base.

1140680 Physical / political Globe



SOLAR SYSTEM MODEL, SIMPLE

A simple and economical model for demonstrating the overall solar system, and the movement of the planets. Similar to Cat No. 1140580, but smaller in size and mounted on wooden base. The central globe depicting sun has a small bulb inside with wires coming out from the base and terminating in a cell-holder to power the bulb. The apparatus has all the nine planets of Solar System from Mercury to Pluto on revolving arms made of metal wire, with the biggest sphere representing sun positioned at the center. The planets are relative to their position as they appear in the solar system, but their sizes not to scale.

1140720 Solar System Model, Simple



INTRODUCTORY EARTH SCIENCE COLLECTION

Basic unit of 75 rocks and minerals demonstrates major rock-forming minerals, the scale of hardness and recognized physical properties. Unit includes 75 specimens, each size 1-1/4" x 3/4", a streak plate, magnet magnifier and compartmented container. Teacher Edition specimens are 3" x 3".

- 2175 Introductory Earth Science Collection
- 2180 Teacher's Edition Collection



CANADIAN COLLECTION OF ROCKS AND MINERALS

This collection contains 40 representative rock and mineral specimens which focus on the economical resources from Canada. These large specimens (1 1/2" x 2") are number coded in a compartmented tray & box.

- Grade 5-12 Canadian Collection of Rocks and Minerals



NORTH AMERICAN ROCK COLLECTION

This collection with rock types and associations with the North American continent contains 50 specimens with each group represented: Igneous, Metamorphic and Sedimentary. Specimens are approximately 1" x 1", number -coded in compartmented container.

- Grade 5-12 North American Rock Collection



MINERAL STUDY PRINTS

Expand students' knowledge of gem minerals, mineral properties, crystal systems; identifying minerals and gem cutting with this set of 12, 9" x 12" laminated study prints. Great for bulletin boards!

- Grade 5-12 Mineral Study Prints



ROCKS AND MINERALS MOUNTED COLLECTIONS

Excellent reference collections and a valuable aid in identifying and comparing common and rare rocks and minerals. These mounted collections display common minerals and igneous, sedimentary and metamorphic rocks. Specimens are 1/2-1". Rock and Minerals Study Guide included.

- 2100 100 Specimen Collection
- 2050 50 Specimen Collection
- 2035-S 35 Specimen Collection
- 2024 24 Specimen Collection
- 2015 15 Specimen Collection

EARTH MATERIALS KIT

The Kit affords an almost endless variety of investigations. Three basic investigations are included, which will serve as a starting point for future investigations. Kit includes 15 pieces each of 24 rock types, and 100 cc's of crushed granite, 30 pieces of halite, 5 pounds of limestone chips, 1# each of soil horizon A and soil horizon C, storage containers and Teacher's insert. Enough materials for an classroom of 30 students working in pairs.

- 2100 Earth Materials Kit



IGNEOUS ROCK COLLECTION (A)

Contains 15 representative specimens of intrusive and extrusive igneous rocks, each approximately 1-1/2" x 1-1/2".

- 2221 Igneous Rock Collection (A)



THE ROCK BOX

The Rock Box is a great collection of nine specimens all enclosed in a special plastic case and all with identifying labels and information. Perfect for that young budding geologist!

- 7960 The Rock Box- Igneous
- 7961 The Rock Box- Metamorphic
- 7962 The Rock Box- Sedimentary
- 7964 The Rock Box- Minerals
- 7965 The Rock Box- Fossils
- 7966 The Rock Box- Geological Oddities



GM816 DIGITAL ANEMOMETER



NEW

Features

- Both air velocity and air temperature measuring
- Different velocity indicating and temperature indicating

Technical Data		GM816
Air velocity	Range	0~30m/s, 0~90km/h, 0~5860ft/min, 0~55knots, 0~65mph
	Accuracy	±5%
	Resolution	0.2m/s
Air temperature	Range	-10°C~45°C, 14F~113F
	Accuracy	±2%
	Resolution	0.2°C
Wind chill		✓
Beaufort scale indication		✓
°C/F selection		✓
Low battery indication		✓
Auto power off		1 min. without any operation
Backlight		12 sec. active by press any key
Max./Avg./current reading		✓
Power supply		2 × 1.5V AA
Weight		55g
Dimensions (W×H×D)		60 mm×105 mm×20 mm



GM816

GM1357 DIGITAL SOUND LEVEL METER



NEW

Features

- Both dBA and dBC frequency weighting characteristic

Technical Data		GM1357
Measuring range		30~130dBA; 35~130dBC
Accuracy		±1.5dB
Resolution		0.1dB (5 digits)
Frequency response		31.5Hz~8.5kHz
Measuring level range		30~130, 40~90, 50~100, 60~110, 80~130
Frequency weighting characteristic		A&C
Time weighting		Fast/Slow
Sampling rate		2 times/second
Microphone		1/2 inch polarization capacitance microphone
AC/DC output		✓
Max. reading		✓
Overload indication		Over/Under
Low battery indication		✓
Power supply		4 × 1.5V AA or 6VDC/100mA adapter
Weight		310g
Dimensions (W×H×D)		70 mm×256 mm×35 mm



GM1357

WATER BATH



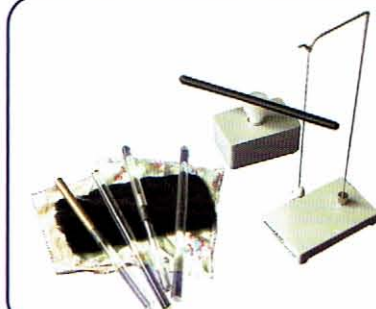
Item:	1057496
Remarks:	<p>Water Bath with two Stainless Steel racks, lid and build-in stirrer.</p> <p>CE Approved!</p> <p>microprocessor control.</p> <p>1. Technical specifications:</p> <p>Supply voltage: 220(240)V/50(60)Hz or 110V 50/60Hz</p> <p>Heating system: 1200W with Smart Energy Saving control and Adjustable speed Stirrer.</p> <p>Temperature Working range: up to 99.5 C</p> <p>Temperature regulation: 0.1Deg.C</p> <p>Capacity of tank: 8 L</p>

New Products from Lionet Science



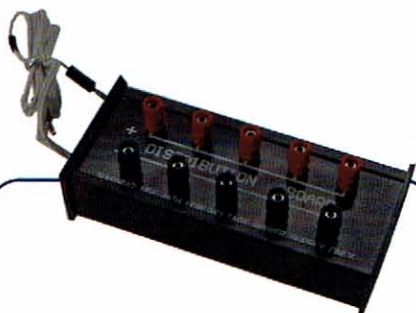
Vacuum Pump

150W, higher efficient, lower noise, CE approved. #1014149



Electrostatic Kits with Supports

This kit contains various friction rods and fabrics for electrostatic experiments a pith ball is suspended and will clearly demonstrate attraction and repulsion. # 1025224



Distribution Board

Suitable for student use in classroom for sharing one power supplier for up to 5 groups. #1035412



Power Supply

Robust 12A AC/DC power supply with overloading protection. 1V step from 1V to 27V selectable. # 1050238



Power Supply

A new robust model with 8A AC/DC output, overloading protection, 1V step from 1V to 13V selectable by J link. # 1050239

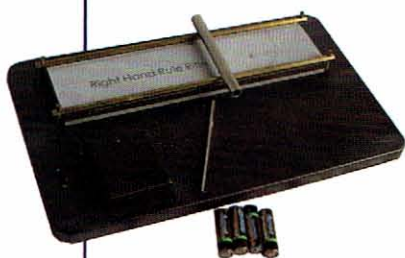


Ring and Disc

Simple materials of the same mass and diameter - a Steel Ring and Wood Disc. #1050234

Air Core Solenoid

Air core solenoid with multi selectable turns, show student the magnet field tension changes when the turn of the coils differ. # 1050263



Right Hand Rule

Investigate the magnetic field around a wire. Our heavy brass wire has terminals arranged on a transparent plastic base. Also included are one 45 mm diameter compass, six smaller (16 mm diameter) compasses, and instructions. Arrange the compasses around the vertical rod and turn on a power supply. # 1050259

SDL150 Dissolved Oxygen Meter/Datalogger



Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC

- Dual display of Oxygen Concentration and Temperature
- Measures dissolved oxygen from 0 to 20.0mg/L and 0 to 100.0% oxygen plus temperature from 32 to 122°F (0 to 50°C)
- Automatic Temperature Compensation from 0 to 50°C via temperature sensor built into polarographic type oxygen probe
- Selectable data sampling rate: 1 second to 8hrs:59min:59sec
- Manually store/recall up to 99 readings
- Large backlit dual LCD
- Record/Recall MIN, MAX readings
- Data Hold plus Auto power off with disable function
- Built-in PC interface
- 3 year warranty (meter)/ 6 months conditional warranty (electrode)
- Complete with 6 x AA batteries, SD card, probe, spare probe head with diaphragm, electrolyte, and hard carrying case; Optional Universal AC adaptors

SPECIFICATIONS	DISSOLVED OXYGEN	OXYGEN	TEMPERATURE
Range	0 to 20.0 mg/L	0 to 100.0%	32 to 122°F (0 to 50°C)
Accuracy	±0.4 mg/L	±0.7%	±0.8°C/1.5°F
Probe Compensation & Adjustment	Salt: 0 to 50%	Altitude: 0 to 8910m	Temp: 0 to 50°C
Datalogging	99 data (manual)/20M data (2G SD card)		
PC Interface	Optional 407001 Software (see p. 106)		
Dimensions/Weight	Meter: 7.2x2.9x1.9" (182x73x48mm)/ 25.6oz(725g) Probe: 0.8Dx4.9"L		

ORDERING

SDL150	Dissolved Oxygen Meter/Datalogger
407510-P	Dissolved Oxygen probe with 13ft (4m) cable
780417A	Replacement Membranes (10/pack)
780418	DO Internal Fill Solution (2pks — 50mL each)
153117	117V AC Adaptor
UA100-240	100-240V AC Adaptor with 3 plugs (US, EU, UK)

407510 Heavy Duty Dissolved Oxygen Meter



Dual display of Oxygen concentration in solutions and Temperature — plus RS-232 PC interface

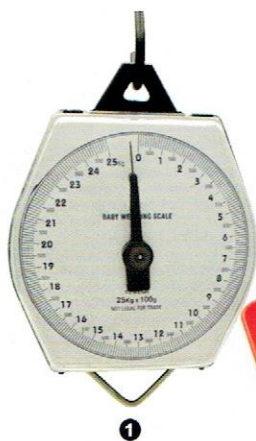
- Measures dissolved oxygen, oxygen, plus temperature
- Min/Max/Avg, Data Hold and Auto power off
- Automatic Temperature Compensation
- Large 1.4" (36mm) LCD display
- Built-in PC interface with optional Data Acquisition Software 407001 and Datalogger 380340 (see p. 106)
- 3 year warranty (meter)/ 6 months conditional warranty (electrode)

SPECIFICATIONS	DISSOLVED OXYGEN	OXYGEN	TEMPERATURE
Range	0 to 19.9mg/L	0 to 100.0%	32 to 122°F (0 to 50°C)
Accuracy	±0.4mg/L	±0.7%	±1.5°F/ ±0.8°C
Probe Compensation & Adjustment	Salt: 0 to 39%	Altitude 0 to 3900m	Temp: 0 to 50°C
Dimensions/ Weight	Meter: 7x3x1.3" (178x74x33mm); Probe: 0.8Dx4.9"L		
Weight	17oz (482g)		

ORDERING

407510	Heavy Duty Dissolved Oxygen Kit
407510-P	Dissolved Oxygen probe with 13ft (4m) cable
780417A	Replacement Membranes (10/pack)
780418	DO Internal Fill Solution (2pks — 50mL each)

Complete with 0.8" (20mm) probe on 13ft (4m) cable, membranes, protective holster with stand, 9V battery, and carrying case



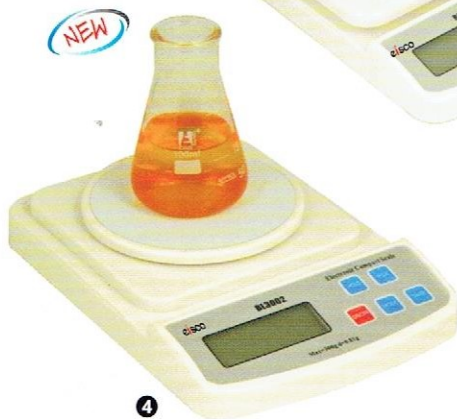
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3



4



5



6

Balance Spring – Dial Type

Dial type, circular scale, 6 inches with suspension and load hooks, with zero adjuster.

	Capacity	Resolution/Sub-division
PH0018A	10 kg	50 g
PH0018B ①	25 kg	100 g
PH0018C	50 kg	200 g

Balance Compression

Useful for weighing chemicals and general purposes. Made of plastic body with wide view dial and easily readable scale. Most durable and provided with zero adjustment knob.

	Capacity	Resolution/Sub-division
PH0020A	500 g	5 g
PH0020B	1000 g	5 g
PH0020C ②	2 kg	10 g
PH0020D	5 kg	25 g

Balance Electronic

Pan size 15x17 cm. Operates on 220V AC supply & battery. Supplied with adapter.

	Capacity	Resolution/Sub-division
PH0021 ③	2 kg	0.1 g
PH0021A	750 g	0.1 g
PH0021B	1 kg	0.1 g
✓ PH0021C	3 kg	0.1 g ✓
PH0021D	6 kg	0.5 g
✓ PH0021E	10 kg 7Kg	1.0 g ✓

Balance Electronic ④

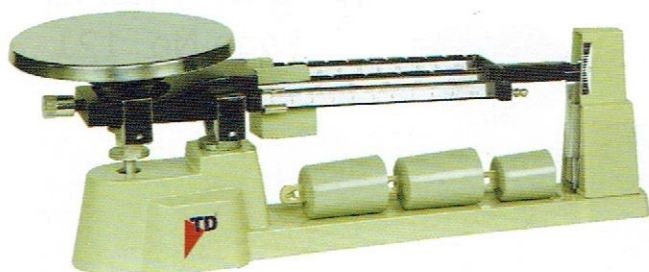
Pan Size 14.5 cm dia. Auto shut off & zero tracking. 5 digit Large LCD display.

	Capacity	Resolution/Sub-division
PH0021F	300 g	0.01 g
✓ PH0021G	500 g	0.01 g ✓

Balance Spring - Economy

Polystyrene body with large, easily read flat scales, zero adjustable devices having anodized metal scale is provided.

	Capacity	Resolution/Sub-division
PH0022A ⑤	100 g/ 1 N	2 g
PH0022B	250 g/ 2.5 N	5 g
PH0022C ⑥	500 g/ 5 N	10 g
PH0022D	1000 g/ 10 N	20 g
PH0022E	2000 g/ 20 N	40 g



**GP - 1133.1
BALANCE TRIPLE BEAM**

A single pan low balance with three tiered beams which can weigh upto 2610g when used with supplementary masses, the balance has three notched weighing beam with center indicating sliding masses giving total capacity of 610g. Additional masses are hung on the end of the beam increasing the capacity upto 2610g. And they can be stored in the recessed base when not required.

Magnetic Damping.

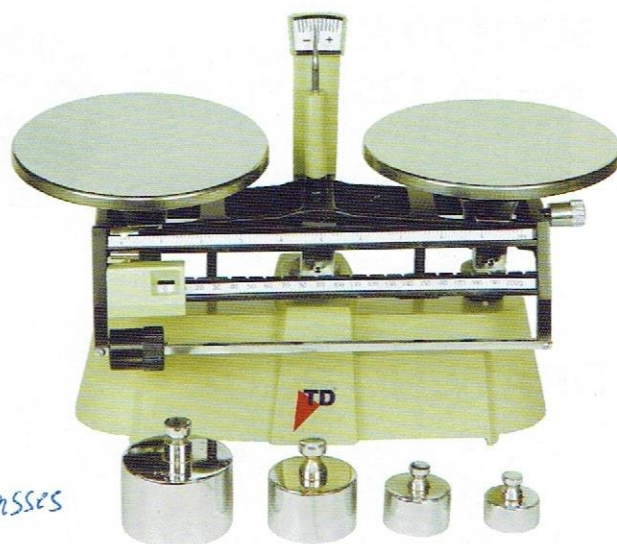
Beams	0 to 500g x 100g
	0 to 100g x 10g
	0 to 10g x 0.1g
Supplementary masses	2 x 1000g
Pan, stainless steel dia.	150 mm.

**GP - 1132.1
BALANCE DOUBLE BEAM *Roberval***

Twin Pan Balance for accurate and rapid weighing of masses upto 2 kg when used with supplementary masses.

The Balance has a cast alloy base and feature angled beams with centre reading poises; undivided tare beam with a poise which slides and rotates for fine adjustment; spring loaded zero adjust compensator; precision ground knives and cross braced aluminium alloy box end beam. Equipped with facility for under balance weighing. Beams 0-200g X 10g, 0-10g X 0.1g Tare 224g Pan, stainless steel, 150mm diameter.

200g ; 500g ; 1kg + masses



**GP - 1127.3
COMPACT BALANCE**

FEATURES

- * Weighing Units like ct, gm, dwt.
- * Simple Battery Operation.
- * Precise and Accurate reading.
- * High contrast LCD Display.

Model	Capacity	Readability
.01	200g	0.01g
.02	300g	0.01g
.03	500g	0.01g ✓
.04	1000g	0.1g
.05	1500g	0.1g
.06	2000g	1g
.07	5000g	2g





HEATING MANTLES

Suitable for laboratories, chemicals, pharmaceuticals, Glass Plants etc. Particularly useful for heating inflammable liquids. Electric heating net is knitted from glass yarn and there is no joint to maintain the strength of the yarn, which is capable of withstanding high temperature up to 400°C. Operates on single phase AC, 220-240V, 50Hz. All mantles are fitted with ON / OFF switch, pilot indicating lamp and Energy Regulator. Available in capacities up to 20L on specific request

	Capacity	Rating
2051720/1	100mL	60W
2051720/2	250mL	150W
2051720/3	500mL	200W
2051720/4	1L	300W
2051720/5	2L	450W
2051720/6	3L	450W
2051720/7	4L	500W

WATER BATHS

Hemispherical shaped vessel, single piece construction made from thick metal sheet. With two handles on the vessel for holding and a set of concentric rings at the top with one center disc having knob.

Sizes (diameter) available are

- 1 100mm
- 2 125mm
- 3 150mm
- 4 200mm



2051760 Copper

2051800 Aluminium

WATER BATH, ALUMINIUM, CYLINDRICAL

Cylindrical vessel with straight wall and flat bottom, made from thick aluminium sheet. With two handles on the vessel for holding and a set of concentric rings at the top with one center disc having knob. Sizes (diameter) available are

- 2051840/1 125mm
- 2051840/2 150mm
- 2051840/3 200mm



WATER BATH, ALUMINIUM, ELECTRICAL

Cylindrical shaped, anodized, aluminium body, with a set of six concentric rings of different diameter to fit at the top and one center disc. Provided with adjustable constant level device, and automatic heater cut-out. Operates on 220-240V AC, 50/60Hz. Supplied complete with 3-core mains cable with connector.

2051860 Water Bath, Aluminium, Electrical

BOILING WATER BATH, RECTANGULAR, 6 PLACE

Single wall, Stainless Steel, rectangular tank with top dimension of about 330x220mm and maximum useful internal water depth of about 90mm with an integral constant level device and a 750W heater, which incorporates overheat protection thermostat. Top removable cover has six holes of about 85mm diameter, each having a set of stainless steel annular rings and central disc with knob. Operates on 220-240V AC, 50/60Hz. Supplied complete with 3-core mains cable with connector.

2051880/1 Boiling Water Bath, Rectangular, 6 Place, Complete Unit

2051880/2 Water Bath inside chamber, rectangular, of stainless steel

2051880/3 Heating Element, 220-240V, 750W, supplied as spare

BOILING WATER BATH, RECTANGULAR, 12 PLACE

Similar to Cat No. 2051880/1, but with rectangular tank having top dimensions of 355x405mm and maximum useful internal water depth of about

100mm. Incorporates a heating device rated at

1500W. Top removable

cover has twelve holes

of about 75mm

diameter, each

having a set of

stainless steel

annular rings and

central disc with knob

for holding. Operates on 220-240V AC, 50/60Hz. Supplied complete with 3-core mains cable with connector.

2051920/1 Boiling Water Bath, Rectangular, 6 Place, Complete Unit

2051920/2 Water Bath inside chamber, rectangular, of stainless steel

2051920/3 Heating Element, 220-240V, 1500W, supplied as spare





DISHES, EVAPORATING 1

Borosilicate Glass, stable round bottom, with pour out.

	Capacity (mL)	Diameter (mm)	Height (mm)
2060270/1	15	50	23
2060270/2	45	60	30
2060270/3	90	80	45
2060270/4	170	95	55
2060270/5	320	115	65
2060270/6	600	140	80

BASIN EVAPORATING, PORCELAIN, FLAT FORM 2

Porcelain, flat form, glazed inside and outside, with spout. Sizes and capacities available are

	Diameter	Capacity
2060300/1	60mm	25mL
2060300/2	75mm	50mL
2060300/3	100mm	100mL
2060300/4	125mm	260mL
2060300/5	150mm	380mL
2060300/6	175mm	600mL
2060300/7	200mm	1000mL
2060300/8	225mm	1900mL



BASIN EVAPORATING, PORCELAIN, ROUND FORM

Porcelain, round form, glazed inside and outside, with spout. Sizes and capacities available are

	Diameter	Capacity
2060330/1	25mm	8mL
2060330/2	40mm	15mL
2060330/3	50mm	20mL
2060330/4	60mm	40mL
2060330/5	75mm	100mL
2060330/6	85mm	125mL
2060330/7	100mm	175mL
2060330/8	110mm	275mL
2060330/9	125mm	450mL

Available in other sizes and capacities on specific request.



BASIN EVAPORATING, SILICA 3

Round bottom, glazed inside and outside, translucent. Available in capacities

	Capacity (mL)	
2060360/1	20	2060360/2 45
2060360/3	70	2060360/4 85
2060360/5	100	



BEAKERS, GLASS, LOW FORM, ECONOMICAL

Soda Glass, low form, with spout. Can be used up to 100°C. Available in capacities (mL)

2060390/1	25	2060390/2	50
2060390/3	100	2060390/4	150
2060390/5	250	2060390/6	400
2060390/7	500	2060390/8	600
2060390/9	800	2060390/10	1000



BEAKER, LOW FORM with graduation and spout DIN 12331

	Capacity (mL)	D (mm)	H (mm)
2060420/1	5	22	30
2060420/2	10	25	35
2060420/3	25	34	50
2060420/4	50	42	60
2060420/5	100	50	75
2060420/6	150	55	90
2060420/7	250	68	95
2060420/8	400	80	110
2060420/9	500	80	115
2060420/10	600	90	125
2060420/11	1000	105	150
2060420/12	2000	132	185
2060420/13	3000	152	210
2060420/14	5000	170	270
2060420/15	10000	217	350



BOTTLES DROPPING, GLASS, TK PATTERN 1

TK pattern, clear glass bottle, with ground glass, grooved stopper and spout. Available in capacities (mL)

2060810/1	15
2060810/2	30
2060810/3	60
2060810/4	125

BOTTLES DROPPING, POLYETHYLENE, TK PATTERN 2

Narrow Mouth Polyethylene Bottles for dispensing small uniform drops of the liquid contained, when squeezed gently. Available in capacities (mL)

2060840/1	60
2060840/2	125



BOTTLES, REAGENT NARROW MOUTH

with Screw Cap and Teflon Liner

	Capacity (mL)
2060870/1	30
2060870/2	60
2060870/3	100
2060870/4	250
2060870/5	500
2060870/6	1000
2060870/7	2000

BOTTLES, REAGENT WIDE MOUTH

with Screw Cap and Teflon Liner

	Capacity (mL)
2060900/1	30
2060900/2	60
2060900/3	100
2060900/4	250
2060900/5	500
2060900/6	1000
2060900/7	2000



BOTTLES, REAGENT NARROW MOUTH

with interchangeable hollow stopper

	Capacity (mL)
2060920/1	30
2060920/2	60
2060920/3	125
2060920/4	250
2060920/5	500
2060920/6	1000
2060920/7	2000



BOTTLES, REAGENT, SODA GLASS, AMBER COLOURED

Soda glass, amber coloured, with flat glass dust-proof stopper.

2060930	Narrow Mouth
2060960	Wide Mouth
Available in capacities (mL)	
1	125
2	180
3	250
4	500
5	1000



BOTTLES, REAGENT, BOROSILICATE GLASS, NARROW MOUTH

Borosilicate glass, plain narrow neck, with interchangeable flat dust-proof stopper.

	Capacity (mL)	Stopper size
2060990/1	60	14/23
2060990/2	125	19/26
2060990/3	250	19/26
2060990/4	500	24/29
2060990/5	1000	29/32
2060990/6	2000	34/35

The Reagent bottles are also available in Amber Colour on specific request.





BOTTLES, BIJOU

Media vaccine, soda glass, round shape, narrow mouth with aluminium screw cap having rubber liner. Available in

	Capacities (mL)
2061080/1	7
2061080/2	14



BOTTLES, GLASS JAR

Glass, screw neck with Bakelite Cap. Available in

	Capacities (mL)
2061110/1	180
2061110/2	250
2061110/3	500
2061110/4	1000
2061110/5	1500

BOTTLES, MAC-CARTNEY

Media vaccine, Borosilicate Glass, narrow neck with aluminium screw cap having rubber liner.

	Capacities (mL)
2061140/1	7
2061140/2	14
2061140/3	28



BOTTLES, GLASS, TISSUE

Culture, Flat on one side with aluminium screw cap having rubber liner. Capacity 110mL

2061170 Bottles, Glass, Tissue

BOTTLES, B.O.D.

with interchangeable stopper

	Capacity (mL)
2061180/1	125
2061180/2	300



BOTTLE, WASHING, GLASS

Gas Washing, Dreschel's type with ground fittings having interchangeable joint head B-24, made of Borosilicate glass. With inlet and outlet tubes. Available in capacities (mL)

	Capacity (mL)	Capacity (mL)
2061200/1	125	2061200/2 250
2061200/3	500	

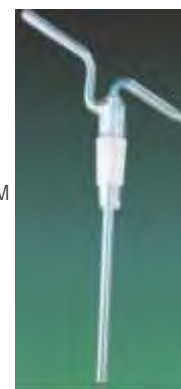
BOTTLES, WASHING, GLASS

Spherical shaped glass bottles with interchangeable ground joint. Available in capacities (mL)

	Capacity (mL)	Capacity (mL)
2061230/1	250	2061230/2 500
2061230/3	1000	

BOTTLES, WASH

	Cone Size	Approx. Stem Length (mm)	To fit Flask
2061240/1	24/29	160	FF 500/3S
2061240/2	24/29	160	FF 500/3UM
2061240/3	24/29	186	FF 1L/3M



BOTTLES, WIDE GROUND

In Hollow Blown, Totally enclosed Stopper

	O.D. x Ht. (mm)	Capacity (mL)
2061250/1	20 x 40	7
2061250/2	25 x 50	25
2061250/3	30 x 60	55
2061250/4	40 x 80	60
2061250/5	50 x 100	135



WEIGHING SCOOP

	Capacity (mL)	Overall Length (mm)
2061255/1	3	70
2061255/2	6	85
2061255/3	10	100



BOTTLES, WASH, POLYETHYLENE 1

Resilient, narrow mouth bottle of low density Polyethylene, acid and alkali proof. These bottles are easy to squeeze and have screw cap with bent delivery tube. Liquid is expelled out through the flexible delivery tube by squeezing the bottle and can be directed wherever required. Available in capacities (mL)

2061260/1	125
2061260/2	250
2061260/3	500
2061260/4	1000

BOTTLES, WASH, SINGLE PIECE, POLYETHYLENE 2

Resilient, translucent and unbreakable wide mouth bottle of low density Polyethylene, single piece blowing. These bottles have built-in delivery tube blown outside the bottle, ensuring no contamination of impurities from the bench while filling. Entire contents can be dispensed without tipping or shaking, stream of liquid jet controlled by the amount of pressure. Graduated on the outside to give an approximation of volume of liquid to be filled or dispensed. Comes with leak proof screw-cap with inner plug. Acid and alkali proof. Available in capacities (mL)

2061320/1	125
2061320/2	250
2061320/3	500

BOTTLES, WASH, WIDE MOUTH, POLYETHYLENE

Wide mouth bottles of low density polyethylene enabling easy filling and cleaning. Features a top closing leak-proof screw type cap with dispensing stem moulded in one piece. Available in 500mL capacity.

2061290 Bottles, Wash, Wide Mouth, Polyethylene



LABELED WASH BOTTLES

Labeled round natural polyethylene for different volatile solvents with the latest hazard information. Solvents can be easily filled inside the bottles by just remove out the top cover of bottles. A unique valve mechanism which automatically vents solvents vapour

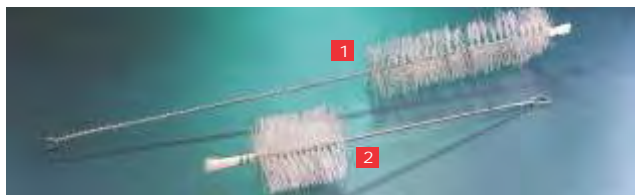
2061300 Labeled wash bottles



BOTTLES, WEIGHING

Ground in Stopper

	O.D. x Ht(mm)		Capacity(mL)
2061350/1	40 x 30	Squat Form	20
2061350/2	50 x 25	- do -	20
2061350/3	50 x 35	- do -	35
2061350/4	50 x 50	- do -	50
2061350/5	60 x 30	- do -	40
2061350/6	20 x 40	Tall Form	5
2061350/7	25 x 50	- do -	15
2061350/8	30 x 60	- do -	25
2061350/9	40 x 80	- do -	60



BRUSHES, CYLINDER 1

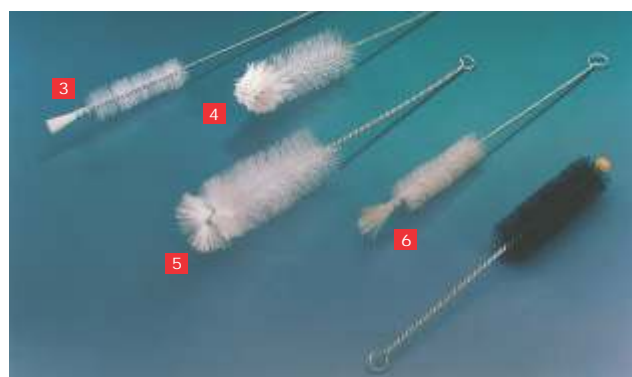
Nylon head with fan shaped end, on strong galvanized wire handle. Sizes available are

	Head (Diameter × Length)	Overall Length
2061590/1	120×65mm	600mm
2061590/2	140×75mm	600mm

BRUSHES, FLASK 2

Nylon bristles head, curved, about 100mm long and 50mm diameter with hinged center joint, with wooden handle, overall length about 380mm

2061620 Brushes, Flask



BRUSHES, TEST TUBE

2061650/1 Nylon bristles on flexible galvanized wire. Head size 65×40mm. Overall length about 230mm 3

2061650/2 Tapered bristles with tip having cotton mop, for tubes 19 to 25mm bore. Overall length about 230mm on flexible galvanized wire handle. 4

2061650/3 Bristles, for shaped end on flexible galvanized wire. Head size 50×60mm. Overall length about 230mm.

2061650/4 Nylon, Head size 50×19mm on flexible galvanized wire, overall length about 230mm. 5

2061650/5 Micro bristles, with cotton end, Head size 38×10mm, on flexible galvanized wire, overall length about 190mm. 6

BRUSHES, TUBE

Nylon brush in the center along the length of a galvanized wire handle. Sizes available are (approximately)

	Head (Length × diameter)	Overall Length
2061680/1	70×3mm	400mm
2061680/2	70×6mm	600mm
2061680/3	70×12mm	600mm

BRUSHES, DUSTING

Flat form, 25mm wide head of hair bristles in metal mount on wood handle.

2061740 Brushes, Dusting

BURETTES, GLASS

Made of clear glass. Each burette individually calibrated for maximum accuracy.

2061770 Burettes, Mohr's, Economical: Made of neutral glass, with glass jet and rubber tubing, for use with Mohr's clip type pinch-cock. Student's quality.



BURETTE CLASS B WITHOUT STOPCOCK 7

	Capacity (mL)	Sub. Div. (mL)	Tolerance ± mL
2061775/1	10 0.	05	0.05
2061775/2	25	0.10	0.10
2061775/3	50	0.10	0.10
2061775/4	100	0.20	0.20

2061800 Burettes, with Glass Stopcock, Student's: Made of neutral glass, with straight bore, leak-proof, glass stop-cock. Student's quality.

2061830 Burettes, with Glass Stopcock, Precision: Class B. Made of Borosilicate glass, straight bore, leak-proof, glass stop-cock. Accurately calibrated, conforms to BS846. Permanent graduations. 8

2061860 Burettes, with Rotaflow Stopcock: Class B. Made of Borosilicate glass, with single bore, leak-proof Rotaflow stop-cock. Accurately calibrated, conforms to BS846. Permanent graduations. 9

2061890 Burettes, with Straight Bore PTFE Key: Class B. Made of Borosilicate glass, with single bore, leak-proof, self lubricating PTFE key. Accurately calibrated, conforms to BS846. Permanent graduations. 10

Available in capacities

1	25×0.1mL	2	50×0.1mL	3	100×0.2mL
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BURETTES, GLASS, WITH DETACHABLE STOP COCK 11

Class B. Made of Borosilicate glass, with single bore, leak-proof, self lubricating PTFE key. The detachable, interchangeable chemical resistant stop-cock has plastic screw connectors at either end for secured positive locking to the burette tube or dispensing jet and provides excellent flow control. Accurately calibrated, conforms to BS846. Permanent graduations.

Available in capacities

2061950/1	25×0.1mL
2061950/2	50×0.1mL
2061950/3	100×0.2mL



STOPCOCKS, INTERFLON FUNNEL REPAIR, PTFE KEY 1

	Key Bore Size (mm)	Stem OD (mm)	Nominal wall thickness mm
2062015/1	2	10	2.2
2062015/2	3	12	2.2
2062015/3	4	12	2.2
2062015/4	6	14	2.2

SIMPLE CELL POT 2

Simple Cell Pot, as the name suggests, is used for making Simple Cells & Voltmeters etc. Moulded in Polypropylene, this Pot has very good contact clarity and excellent chemical resistance. Being in Polypropylene, this Pot is much durable than the one used conventionally. Material: Polypropylene

	Particulars	Packing
5011150	Simple Cell Pot	12 Pcs.



BURNER, BUNSEN

Plated burner tube of brass of approximate size 100×12mm (height × diameter), with rotatable air-regulator and a cylindrical rifled connector, mounted on a painted metal base of diameter about 70mm. Overall height 145mm. Suitable for NG and LPG.

- 2062040/1 Bunsen Burner, with heavier, sturdy sheet metal base 3
- 2062040/2 Bunsen Burner, with economical, light weight, die pressed sheet metal base and threaded rotatable air regulator 4
- 2062040/3 Bunsen Burner, with heavier cast metal base and stop-cock on the rifled connector for inlet gas control 5
- 2062040/4 Bunsen Burner, with steel base and nickel plated burner tube mounted on the conical base instead of vertical pillar shaped projection from the base 6



BURNER, BUNSEN, WITH STABILIZER TOP

For artificial gas and LPG. Has air regulator and slot shaped orifice. Nickel plated brass mixing tube is mounted on metal base with a cut-away. Specially designed top for flame stabilization providing improved efficiency in the performance.

- 2062070/1 Burner, Bunsen, with Stabilizer Top, with plated stamped steel base 7
- 2062070/2 Burner, Bunsen, with Stabilizer Top, with die cast alloy metal base 8

BURNERS

Burners are available for operation on Town Gas, Natural Gas (NG), bottled gases, Liquid Petroleum Gas (LPG) and are designed for continuous, uncompromising, high performance levels, with cast metal, heavy, wide bases providing exceptional stability to the burners preventing their tipping over while use.

Town gas is composed of hydrogen and methane with some carbon monoxide (calorific value approximately 19MJm⁻³) and is delivered at a pressure of approximately 6.2×10³Nm⁻² (Pa).

Natural Gas (NG) is almost entirely methane, which burn with much hotter flame and is delivered at a substantially higher pressure than town gas. The burners are, therefore, designed for high calorific value of this gas (approximately 38 MJm⁻³). The delivery pressure of natural gas is about 2×10⁵Nm⁻² (Pa).

Bottled gases liquefy at fairly high temperature and can be easily stored and transported in steel cylinders. The principal gases used are Propane (C₃H₈) and Butane (C₄H₁₀).

The gas cylinders must always be used with a suitable pressure reducing valve and regulator.

The calorific value of propane is about 93.2MJm⁻³ and normal delivery pressure is 3500Nm⁻² (Pa).

Butane has calorific value of about 119.3MJm⁻³ and has a normal delivery pressure of 2750Nm⁻² (Pa).



While placing orders kindly use correct Catalogue numbers and Quotation reference.



CONDENSER, AIR

Simple condensers for condensation of materials with boiling points above 150°C.

	Socket Size	Cone Size	Effective Length (mm)	Overall Length (mm)
2062540/1	10/19	10/19	100	140
2062540/2	14/23	14/23	200	260
2062540/3	19/26	19/26	150	210
2062540/4	24/29	24/29	250	365
2062540/5	19/26	19/26	400	470
2062540/6	24/29	24/29	500	615
2062540/7	29/32	29/32	500	620
2062540/8	24/29	24/29	750	865

CONDENSER, AIR

Borosilicate glass, Plain tube about 12mm outside diameter, with funnel top. Sizes (length) available are

2062550/1	57cm
2062550/2	67cm
2062550/3	80cm
2062550/4	90cm



CONDENSER, LIEBIG 1

	Socket Size	Cone Size	Effective Length (mm)
2062580/1	14/23	14/23	150
2062580/2	19/26	19/26	200
2062580/3	24/29	24/29	200
2062580/4	19/26	19/26	300
2062580/5	24/29	24/29	300
2062580/6	29/32	29/32	300
2062580/7	19/26	19/26	350
2062580/8	24/29	24/29	350
2062580/9	19/26	19/26	400
2062580/10	24/29	24/29	400
2062580/11	29/32	29/32	400
2062580/12	24/29	24/29	500
2062580/13	29/32	29/32	500
2062580/14	24/29	24/29	600
2062580/15	24/29	24/29	750
2062580/16	34/35	34/35	500
2062580/17	34/35	34/35	600
2062580/18	34/35	34/35	750
2062580/19	34/35	34/35	900
2062580/20	-	14/23	300
2062580/21	-	24/29	350
2062580/22	-	34/35	250



CONDENSERS, LIEBIG JOINTED 2

Popular water-jacketed condenser with detachable plastic screwthread connectors for easy and safe attachment of rubber hose.

	Socket Size	Cone Size	Effective Length (mm)	Overall Length (mm)
2062610/1	10/19	10/19	60	135
2062610/2	14/23	14/23	155	260
2062610/3	19/26	19/26	208	340
2062610/4	19/26	19/26	250	380
2062610/5	24/29	24/29	250	390
2062610/6	29/32	29/32	250	400
2062610/7	19/26	19/26	398	530
2062610/8	24/29	24/29	395	535
2062610/9	29/32	29/32	400	550

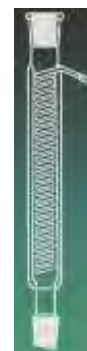
CONDENSERS (Double Surface) DAVIES

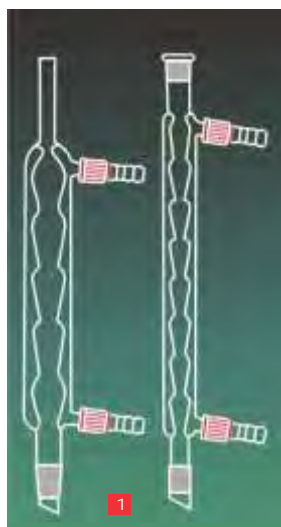
	Socket Size	Cone Size	Effective Length (mm)
2062620/1	19/26	19/26	150
2062620/2	24/29	24/29	150
2062620/3	19/26	19/26	200
2062620/4	24/29	24/29	200
2062620/5	29/32	29/32	200
2062620/6	-	19/26	200
2062620/7	-	24/29	200
2062620/8	-	34/35	200
2062620/9	-	19/26	250
2062620/10	19/26	19/26	250
2062620/11	24/29	24/29	250
2062620/12	19/26	19/26	300
2062620/13	24/29	24/29	300
2062620/14	24/29	24/29	400
2062620/15	24/29	24/29	500
2062620/16	34/35	34/35	500
2062620/17	34/35	34/35	600



CONDENSERS, INLAND REVENUE

	Socket Size	Cone Size	Effective Length (mm)
2062625/1	19/26	19/26	200
2062625/2	24/29	24/29	200





CONDENSER, ALLIHN 1

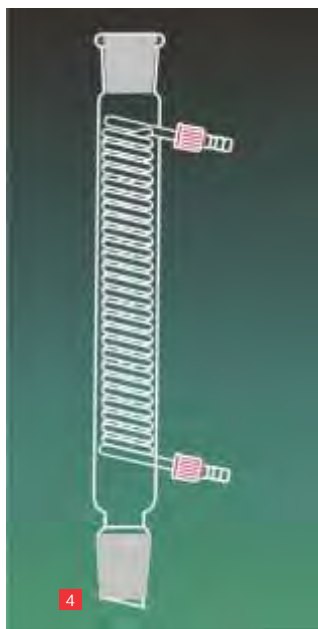
with internal bulbs to give an increased cooling surface.

	Cup OD (mm)	Cone Size	Effective Length (mm)	Overall Length (mm)
2062630	22	13	400	600

CONDENSER, ALLIHN 2

with detachable plastic screwthread connectors for easy and safe attachment of flexible tubing.

	Socket Size	Cone Size	Effective Length (mm)	Overall Length (mm)
2062640/1	-	19/26	250	400
2062640/2	-	24/29	250	405
2062640/3	-	29/32	250	415
2062640/4	-	34/35	250	335
2062640/5	-	40/38	250	365
2062640/6	-	50/42	250	365
2062640/7	24/29	24/29	400	545



CONDENSERS, COIL 3

with detachable plastic connectors for the attachment of rubber hose. Ideal for use in the upright reflux mode where countercurrent cooling is possible.

	Socket Size	Cone Size	Effective Length (mm)	Overall Length (mm)
2062645/1	-	34/35	160	320
2062645/2	-	40/38	160	380
2062645/3	-	45/40	207	400
2062645/4	-	50/42	207	348

CONDENSERS, COIL 4

with detachable plastic screwthread connector which allow flexible tubing to be fitted easily & safely. Suitable for either reflux or distillation work.

	Socket Size	Cone Size	Effective Length (mm)	Overall Length (mm)
2062655/1	19/26	19/26	165	305
2062655/2	24/29	24/29	165	310
2062655/3	29/32	29/32	165	315
2062655/4	19/26	19/26	320	460
2062655/5	24/29	24/29	320	465
2062655/6	29/32	29/32	320	470

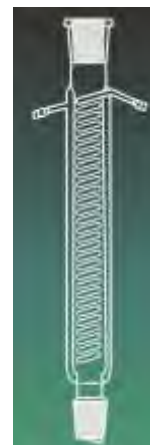
CONDENSERS, COIL, REVERSIBLE

with detachable plastic connectors for the attachment of flexible tubing.

	Socket Size	Effective Length (mm)	Overall Length (mm)
2062660/1	19/26 & 24/29	160	315
2062660/2	24/29 & 34/35	160	335

CONDENSERS, JACKETED COIL

	Socket Size	Cone Size	Effective Length (mm)
2062665/1	19/26	19/26	150
2062665/2	24/29	24/29	150
2062665/3	-	34/35	150
2062665/4	-	40/38	150
2062665/5	19/26	19/26	200
2062665/6	24/29	24/29	200
2062665/7	19/26	19/26	300
2062665/8	24/29	24/29	300
2062665/9	24/29	24/29	400
2062665/10	34/35	34/35	400
2062665/11	34/35	34/25	500



CONDENSERS, GRAHAM'S

Borosilicate glass. Designed for high degree of coolant turbulence and permits the use of thin wall tubing without sacrificing strength. This spiral or worm type condenser offers most effective cooling. Sizes available are

	Length of Jacket	Total Length
2062670/1	30cm	48cm
2062670/2	40cm	59cm
2062670/3	50cm	71cm



CONDENSERS, ETHER

	Socket Size	Cone Size	Effective Length (mm)
2062680/1	19/26	24/29	150
2062680/2	19/26 & 24/29	24/29	200
2062680/3	19/26 & 24/29	24/29	200



CONDENSERS, FRIEDRICH

	Socket Size	Cone Size	Effective Length (mm)
2062690/1	19/26	19/26	150
2062690/2	19/26 & 24/29	24/29	200
2062690/3	19/26 & 24/29	24/29	250

Above Condensers with Cat No. 2062640 and 2062670 are also available with Socket and Cone of sizes 14/23, 19/26, 24/29, 29/32 on specific request.



PRESSURE COOKER

Large domestic type pressure cooker made of lightweight, polished aluminium alloy with safety valve. Reinforced heat-resistant handles, with emergency safety valve, which releases the steam in case of any blockage in the main valve blocked. Capacity about 5L. Inner dimensions are 150×210mm (height × diameter) approx.

2062700 Pressure Cooker
Available in other sizes and capacities on specific request.



CRUCIBLES, PORCELAIN, SQUAT FORM

Porcelain, Squat type, glazed inside and outside completes with lid having ringed handle. Available in capacities (mL)

	(mL)		(mL)
2062730/1	10	2062730/2	15
2062730/3	18	2062730/4	25
2062730/5	50	2062730/6	80
2062730/7	100	2062730/8	150
2062730/9	200	2062730/10	250



CRUCIBLES, PORCELAIN, TALL FORM

Porcelain, Tall form, glazed inside and outside, complete with lid having ringed handle. Available in capacities (mL)

	(mL)		(mL)
2062760/1	10	2062760/2	20
2062760/3	25	2062760/4	30
2062760/5	35	2062760/6	50
2062760/7	100		



CRUCIBLES, SILICA

Low form, glazed inside and outside, translucent, with lid. Available in capacities (mL)

	(mL)		(mL)
2062790/1	15	2062790/2	25
2062790/3	50	2062790/4	80
2062790/5	150		

Silica Crucibles, Tall Form are also available on specific request.

MICRO CRUCIBLES, PORCELAIN

Porcelain, small size, glazed inside and outside, complete with lid. Available in capacities (mL)

	(mL)		(mL)
2062820/1	1	2062820/2	3
2062820/3	5	2062820/4	6
2062820/5	8		

MICRO CRUCIBLES, SILICA

Silica, small size, glazed inside and outside, complete with lid.

Available in capacities

2062830/1	1mL
2062830/2	3mL
2062830/3	5mL
2062830/4	6mL
2062830/5	8mL





CYLINDER, MEASURING, WITH SPOUT

Detachable Hexagonal Plastic base

	Capacity (mL)	Graduations (mL)	Approx Height (mm)
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Cylinder Complete :

2063030/1	10	0.2	150
2063030/2	25	0.5	175
2063030/3	50	1.0	195
2063030/4	100	1.0	270
2063030/5	250	2.0	320

Glass Cylinder Body only :

2063030/6	10	0.2	140
2063030/7	25	0.5	160
2063030/8	50	1.0	180
2063030/9	100	1.0	250
2063030/10	250	2.0	300

CYLINDER, MEASURING, WITH SPOUT CLASS A

Calibrated to Class A tolerance, Graduations in white enamel with Robust Hexagonal foot.

	Capacity (mL)	Graduations (mL)	Approx Height (mm)
--	---------------	------------------	--------------------

2063040/1	5	0.1	115
2063040/2	10	0.2	140
2063040/3	25	0.5	170
2063040/4	50	1.0	200
2063040/5	100	1.0	260
2063040/6	250	2.0	335
2063040/7	500	5.0	390
2063040/8	1000	10.0	470
2063040/9	2000	20.0	570



Pharmaceutical DIN glassware?

Unsure? Please contact customer services



CYLINDER, MEASURING, WITH SPOUT CLASS A

Calibrated to Class A tolerance, Graduations in white enamel with Robust Hexagonal foot.

	Capacity (mL)	Graduations (mL)	Height Approx (mm)
--	---------------	------------------	--------------------

2063050/1	5	0.1	115
2063050/2	10	0.2	140
2063050/3	25	0.5	170
2063050/4	50	1.0	200
2063050/5	100	1.0	260
2063050/6	250	2.0	335
2063050/7	500	5.0	390
2063050/8	1000	10.0	470
2063050/9	2000	20.0	570



CYLINDERS, MIXING, WITH PLASTIC STOPPER

Supplied with polyethylene stopper. Easy to read graduations in blue enamel.

	Capacity (mL)	Graduations (mL)	Maximum Height (mm)	Stopper Size
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2063060/1	5	0.1	115	10/19
2063060/2	10	0.2	140	10/19
2063060/3	25	0.5	170	14/23
2063060/4	50	1.0	200	19/26
2063060/5	100	1.0	260	24/29
2063060/6	250	2.0	335	29/32
2063060/7	500	5.0	390	34/35
2063060/8	1000	10.0	470	45/40
2063060/9	2000	20.0	570	45/40

FILTER PAPER SHEETS

Big sheets of filter paper with quality similar to Cat No. 2063720, available in square or rectangular shapes. Supplied in pack of 500 sheets. Sizes available are

2063780/1	45×45cm, Square
2063780/2	46×56cm, Rectangular

FILTER PUMP

Total length 240mm outer diameter of upper tube 18mm and lower tube 10mm outer diameter of side tube 8mm. Sizes (diameter) available are



2063810/1	5cm	2063810/2	6.25cm
2063810/3	7.5cm	2063810/4	10cm



JOINT CLIPS, (POLYACETAL)

	Joint Size	Colour Code
2063815/1	10/19	Mint
2063815/2	12/21	Violet
2063815/3	14/23	Yellow
2063815/4	19/26	Blue
2063815/5	24/29	Green
2063815/6	29/32	Red
2063815/7	34/35	Orange
2063815/8	40/38	Ochre
2063815/9	45/40	Brown

FILTER PUMP

Provides a moderate vacuum (upto 65mbar) connected to a water supply. Fitted with a non-return valve to prevent suck-back and flooding. Manufactured from chemically resistant borosilicate glass.

	Overall Height (mm)	Body diameter (mm)
2063820	230	20



FILTER PUMP MADE OF PLASTIC

Total length 240mm outer diameter of upper tube 18mm and lower tube 10mm outer diameter of side tube 8mm. Sizes (diameter) available are

2063830/1	5cm
2063830/2	6.25cm
2063830/3	7.5cm
2063830/4	10cm



FLASKS, BOILING, ROUND BOTTOM, SHORT NECK, STUDENT'S

Made of soda glass. Round bottom, short neck, vial mouth. Available in capacities

2063840/1	100mL	2063840/2	150mL
2063840/3	250mL	2063840/4	500mL
2063840/5	1000mL		

FLASKS, ROUND BOTTOM, MEDIUM NECK

	Nominal Capacity (mL)	Socket Size (mm)	Overall Height length(mm)	Neck Size (mm)
2063850/1	50	24/29	130	45
2063850/2	100	24/29	145	45
2063850/3	150	24/29	150	45
2063850/4	250	24/29	165	45
2063850/5	500	24/29	180	45
2063850/6	500	24/29	205	70
2063850/7	1000	24/29	205	40
2063850/8	2000	34/35	280	70



Whatmann Accelerators

These are the readymade tablets. When a tablet is shaken with water, a paper pulp is formed, which is mixed with gelatinous precipitates like $Al(OH)_3$ or $Fe(OH)_3$ to make their filtration easy. Gelatinous precipitates cannot be filtered in in filter crucibles as they clog pores of filter crucible.



FLASKS, ROUND BOTTOM, TWO NECKS 3

	Capacity (mL)	Centre Socket	Side Socket	Neck length (mm)
2063865/1	25	14/23	14/23	77
2063865/2	50	14/23	14/23	89
2063865/3	100	24/29	14/23	110
2063865/4	100	24/29	19/26	110
2063865/5	250	24/29	14/23	130
2063865/6	250	24/29	19/26	130
2063865/7	500	24/29	14/23	150
2063865/8	500	24/29	19/26	150
2063865/9	1000	24/29	14/23	180
2063865/10	1000	24/29	19/26	180
2063865/11	2000	34/35	19/26	225

FLASKS, ROUND BOTTOM, SHORT NECK CONTINUED 1

	Capacity (mL)	Socket Size	Overall Height (mm)	Neck length (mm)
2063855/1	1000	29/32	183	10
2063855/2	1000	34/35	196	20
2063855/3	1000	45/40	201	25
2063855/4	1000	55/44	205	25
2063855/5	2000	24/29	208	10
2063855/6	2000	24/29	215	20
2063855/7	2000	29/32	220	15
2063855/8	2000	34/35	228	20
2063855/9	3000	24/29	236	15
2063855/10	3000	34/35	249	20
2063855/11	4000	45/40	270	20
2063855/12	5000	29/32	270	15
2063855/13	5000	34/35	280	20
2063855/14	5000	45/40	285	20
2063855/15	5000	55/44	289	20
2063855/16	10000	34/35	350	20

FLASKS, BOILING, ROUND BOTTOM, LONG NECK, STUDENT'S

Made of soda glass. Round bottom, long neck, vial mouth. Available in capacities

2063870/1	100mL
2063870/2	150mL
2063870/3	250mL
2063870/4	500mL



FLASKS, ROUND BOTTOM, UNIFORM HEIGHT 2

	Capacity (mL)	Socket Size	Overall Height (mm)	Neck length (mm)
2063860/1	500	24/29	205	70
2063860/2	1000	24/29	205	40
2063860/3	2000	24/29	205	10
2063860/4	2000	34/35	280	70
2063860/5	5000	34/35	280	20



FLASKS, BOILING, FLAT BOTTOM, NARROW NECK

Flat base for free-standing on benches, hotplates etc. with white enamel marking spot.

	Capacity (mL)	Height (mm)	Body Dia. (mm)	Neck ID (mm)
2063875/1	50	100	50	22
2063875/2	100	110	64	24
2063875/3	250	140	85	34
2063875/4	500	170	105	34
2063875/5	1000	200	131	45
2063875/6	2000	250	166	50
2063875/7	4000	300	207	50
2063875/8	6000	340	237	60
2063875/9	10000	400	280	60
2063875/10	12000	465	300	60
2063875/11	20000	558	341	60



FLASKS, BOILING, ROUND BOTTOM, NARROW NECK 1

	Capacity (mL)	Height (mm)	Bulb Dia. (mm)	Neck ID (mm)
2063880/1	50	105	51	22
2063880/2	100	115	65	24
2063880/3	250	140	85	34
2063880/4	500	180	105	34
2063880/5	1000	220	131	45
2063880/6	2000	280	166	50
2063880/7	4000	315	207	50
2063880/8	6000	355	236	60
2063880/9	10000	420	279	60
2063880/10	20000	515	345	60

FLASKS, BOILING, ROUND BOTTOM, WIDE NECK 2

	Capacity (mL)	Height (mm)	Bulb Dia. (mm)	Neck ID (mm)
2063885/1	50	105	51	22
2063885/2	100	115	65	24
2063885/3	250	140	85	34
2063885/4	500	180	105	34
2063885/5	1000	220	131	45
2063885/6	2000	280	166	50
2063885/7	4000	315	207	50
2063885/8	6000	355	236	60
2063885/9	10000	420	279	60
2063885/10	20000	515	345	60

FLASKS, BOILING, ROUND BOTTOM, BOROSILICATE GLASS

Round bottom short necked flask, of Borosilicate glass. Available in capacities

2063900/1	25mL
2063900/2	50mL
2063900/3	100mL
2063900/4	150mL
2063900/5	250mL
2063900/6	500mL
2063900/7	1000mL
2063900/8	2000mL



FLASKS, SMALL CAPACITY, TWO NECKS 3

	Capacity (mL)	Centre Socket	Side Socket	Height (mm)
2063910/1	25	14/23	14/23	77
2063910/2	50	14/23	14/23	89

FLASKS, ROUND BOTTOM, THREE NECKS 4

	Capacity (mL)	Centre Socket	Side Socket	Height (mm)
2063920/1	25	14/23	14/23	77
2063920/2	25	19/26	14/23	80
2063920/3	50	14/23	14/23	89
2063920/4	50	19/26	14/23	92
2063920/5	50	19/26	19/26	92
2063920/6	100	19/26	14/23	108
2063920/7	100	24/29	14/23	110
2063920/8	100	24/29	19/26	110
2063920/9	250	19/26	19/26	128
2063920/10	250	24/29	14/23	130
2063920/11	250	24/29	19/26	130
2063920/12	250	29/32	14/23	135
2063920/13	250	29/32	19/26	135
2063920/14	500	24/29	14/23	150
2063920/15	500	24/29	19/26	150
2063920/16	500	29/32	14/23	153
2063920/17	500	29/32	19/26	153
2063920/18	1000	24/29	14/23	180
2063920/19	1000	24/29	19/26	180
2063920/20	1000	29/32	19/26	183
2063920/21	1000	29/32	29/32	183
2063920/22	1000	34/35	19/26	195
2063920/23	2000	24/29	19/26	205
2063920/24	2000	34/35	19/26	228
2063920/25	3000	34/35	19/26	249

CULTURE VESSELS

	Capacity (mL)	Flange Bore mm	Height mm	Dia. Body (mm)
2063925/1	500	75	130	80
2063925/2	1000	100	160	105
2063925/3	2000	100	225	133
2063925/4	5000	100	290	181
2063925/5	10000	100	375	227
2063925/6	20000	100	465	288





FLASKS, ROUND BOTTOM, SHORT NECK

	Capacity (mL)	Socket Size	Height (mm)	Neck Length (mm)
2063930/1	5	10/19	50	5
2063930/2	5	14/23	65	15
2063930/3	10	10/19	65	15
2063930/4	10	14/23	68	15
2063930/5	25	14/23	74	10
2063930/6	25	19/26	80	15
2063930/7	25	24/29	80	15
2063930/8	50	14/23	89	15
2063930/9	50	19/26	90	15
2063930/10	50	24/29	95	15
2063930/11	50	34/35	95	15
2063930/12	100	14/23	105	15
2063930/13	100	19/26	108	15
2063930/14	100	24/29	110	15
2063930/15	100	29/32	114	15
2063930/16	100	34/35	112	10
2063930/17	150	19/26	114	10
2063930/18	150	24/29	115	15
2063930/19	150	29/32	120	15
2063930/20	150	34/35	118	10
2063930/21	250	14/23	126	15
2063930/22	250	19/26	129	15
2063930/23	250	24/29	130	15
2063930/24	250	29/32	135	15
2063930/25	250	34/35	138	15
2063930/26	500	19/26	147	15
2063930/27	500	24/29	150	15
2063930/28	500	29/32	153	15
2063930/29	500	34/35	166	25
2063930/30	500	45/40	171	25
2063930/31	1000	19/26	177	15
2063930/32	1000	24/29	180	15



FLASKS, BOILING, FLAT BOTTOM, STUDENT'S

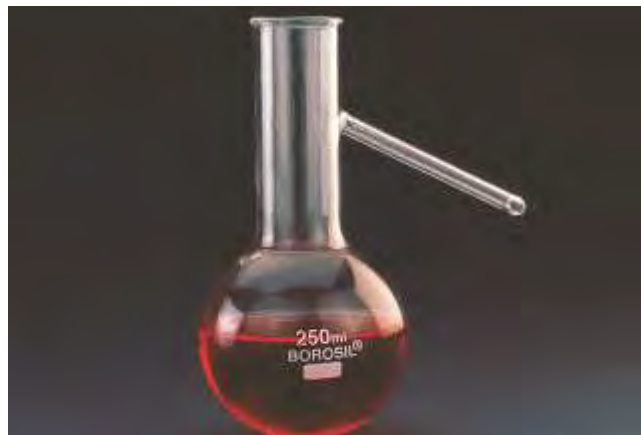
Made of soda glass. Flat bottom, long neck, vial mouth. Available in capacities

2063960/1	100mL	2063960/2	150mL
2063960/3	250mL	2063960/4	500mL
2063960/5	1000mL		

FLASKS, BOILING, FLAT BOTTOM, BOROSILICATE GLASS

Florence, flat bottom, made of Borosilicate glass. Available in capacities

2063990/1	25mL	2063990/2	50mL
2063990/3	100mL	2063990/4	150mL
2063990/5	250mL	2063990/6	300mL
2063990/7	500mL	2063990/8	1000mL
2063990/9	2000mL	2063990/10	3000mL
2063990/11	5000mL		



FLASKS, DISTILLING

Round bottom, with side arm, Borosilicate glass. Available in capacities

2064050/1	100mL
2064050/2	150mL
2064050/3	250mL
2064050/4	500mL
2064050/5	1000mL
2064050/6	2000mL



FLASKS, FLAT BOTTOM, SHORT NECK

	Capacity (mL)	Socket Size	Height (mm)
2064020/1	50	19/26	80
2064020/2	50	24/29	85
2064020/3	100	19/26	95
2064020/4	100	24/29	100
2064020/5	100	29/32	100
2064020/6	100	34/35	105
2064020/7	150	19/26	105
2064020/8	150	24/29	110
2064020/9	150	29/32	110
2064020/10	150	34/35	115
2064020/11	250	19/26	115
2064020/12	250	24/29	120
2064020/13	250	29/32	125
2064020/14	250	34/35	125
2064020/15	500	19/26	135
2064020/16	500	24/29	140
2064020/17	500	29/32	145
2064020/18	500	34/35	155
2064020/19	1000	24/29	170
2064020/20	1000	29/32	165
2064020/21	1000	34/35	175
2064020/22	2000	24/29	205
2064020/23	2000	29/32	210
2064020/24	2000	34/35	215
2064020/25	4000	45/40	260



FLASKS, ERLLENMEYER, NARROW MOUTH, STUDENT'S

Narrow mouth conical flask of soda glass. Available in capacities

1	50mL	2	100mL
3	150mL	4	250mL
5	500mL	6	1000mL

2064080 Without Graduation
2064110 With Approximate Graduations

FLASKS, ERLLENMEYER, NARROW MOUTH, BOROSILICATE GLASS

Conical flask, narrow mouth, Borosilicate glass duly graduated.
Available in capacities

2064140/1	10mL
2064140/2	25mL
2064140/3	50mL
2064140/4	100mL
2064140/5	150mL
2064140/6	250mL
2064140/7	500mL
2064140/8	1000mL



FLASKS, CONICAL

Erlenmeyer flasks with highest quality ground glass socket.

	Capacity (mL)	Socket Size	Height (mm)	Diameter (mm)
2064170/1	5	10/19	50	24
2064170/2	5	14/23	54	25
2064170/3	10	10/19	60	33
2064170/4	10	14/23	60	34
2064170/5	25	10/19	64	40
2064170/6	25	14/23	72	42
2064170/7	25	19/26	77	42
2064170/8	50	14/23	85	51
2064170/9	50	19/26	85	51
2064170/10	50	24/29	90	51
2064170/11	100	14/23	107	64
2064170/12	100	19/26	103	64
2064170/13	100	24/29	107	64
2064170/14	100	29/32	110	64
2064170/15	150	19/26	118	74
2064170/16	150	24/29	118	74
2064170/17	150	29/32	116	74
2064170/18	250	19/26	134	85
2064170/19	250	24/29	130	85
2064170/20	250	29/32	128	85
2064170/21	250	34/35	130	85
2064170/22	500	19/26	167	105
2064170/23	500	24/29	167	105
2064170/24	500	29/32	167	105
2064170/25	500	34/35	165	105
2064170/26	1000	24/29	213	131
2064170/27	1000	29/32	208	131
2064170/28	1000	34/35	205	131
2064170/29	2000	29/32	274	166
2064170/30	2000	34/35	263	166





FLASKS, FILTER 1

Buchner type flasks for vacuum filtration having integral side arm to accept 9mm bore flexible tubing.

	Capacity (mL)	Body Diameter (mm)	Neck ID (mm)	Height (mm)
2064290/1	100	64	24	105
2064290/2	250	85	35	155
2064290/3	500	105	35	185
2064290/4	1000	135	45	230
2064290/5	2000	166	60	260
2064290/6	5000	220	68	385

FLASKS, FILTER 2

Buchner type flasks for vacuum filtration having integral side arm to accept 9mm bore flexible tubing.

(mm)	Capacity (mL)	Socket Size	Height (mm)	Diameter (mm)
2064300/1	100	19/26	107	64
2064300/2	100	24/29	107	64
2064300/3	250	24/29	145	85
2064300/4	250	29/32	145	85
2064300/5	500	24/29	172	105
2064300/6	500	29/32	172	105
2064300/7	1000	24/29	227	136
2064300/8	1000	29/32	227	136

FLASKS, IODINE

These flasks are blown specially for iodine value determination. The stopper handle projects above liquid seal trough to facilitate its removal, with interchangeable stopper. Available in capacities

	Capacity	Interchangeable Joints
2064320/1	100mL	24/29
2064320/2	250mL	24/29
2064320/3	500mL	24/29



FLASKS, PEAR SHAPED, SINGLE NECK

	Capacity (mL)	Socket Size	Height (mm)	Diameter (mm)
2064330/1	5	10/19	64	23
2064330/2	5	14/23	67	23
2064330/3	10	10/19	74	28
2064330/4	10	14/23	85	28
2064330/5	25	10/19	89	38
2064330/6	25	14/23	100	38
2064330/7	50	14/23	115	48
2064330/8	50	19/26	125	48
2064330/9	100	14/23	135	58
2064330/10	100	19/26	140	58
2064330/11	100	24/29	150	58



FLASK, PEAR SHAPED, TWO NECKS 3

	Capacity (mL)	Centre Socket	Side Socket	Height (mm)
2064335	50	14/23	14/23	115

FLASKS, PEAR SHAPED, THREE NECKS 4

	Capacity (mL)	Centre Socket	Side Socket	Height (mm)
2064340	25	10/19	10/19	112

FLASKS PEAR SHAPED, DISTILLATION

	Capacity (mL)	Socket Size	Cone Size	Height (mm)
2064345/1	10	14/23	14/23	118
2064345/2	25	14/23	14/23	132
2064345/3	50	14/23	14/23	147
2064345/4	100	14/23	14/23	165



FLASKS, VOLUMETRIC, CLASS B UNSTOPPERED 3

	Capacity (mL)	Tolerance (mL)	Height (mm)	Stopper Size
2064400/1	1	0.05	45	10/19
2064400/2	2	0.05	50	10/19
2064400/3	5	0.05	70	10/19
2064400/4	10	0.05	90	10/19
2064400/5	20	0.08	110	10/19
2064400/6	25	0.08	110	10/19
2064400/7	50	0.12	140	12/21
2064400/8	100	0.20	170	14/23
2064400/9	200	0.30	210	14/23
2064400/10	250	0.30	220	14/23
2064400/11	500	0.50	260	19/26
2064400/12	1000	0.80	300	24/29
2064400/13	2000	1.20	370	29/32
2064400/14	5000	2.40	475	34/35

FLASKS, VOLUMETRIC, WITH GLASS STOPPER 4

Similar to Cat No. 2064400, but with interchangeable glass stoppers. Available in capacities from 5ml to 5 Ltr.

2064410/1 Flasks, Volumetric, with Glass Stopper



FLASKS, VOLUMETRIC, CLASS B WITH PLASTIC STOPPER

	Capacity (mL)	Tolerance (mL)	Height (mm)	Stopper Size
2064440/1	1	0.05	45	10/19
2064440/2	2	0.05	50	10/19
2064440/3	5	0.05	70	10/19
2064440/4	10	0.05	90	10/19
2064440/5	20	0.08	110	10/19
2064440/6	25	0.08	110	10/19
2064440/7	50	0.12	140	12/21
2064440/8	100	0.20	170	14/23
2064440/9	200	0.30	210	14/23
2064440/10	250	0.30	220	14/23
2064440/11	500	0.50	260	19/26
2064440/12	1000	0.80	300	24/29
2064440/13	2000	1.20	370	29/32
2064440/14	5000	2.40	475	34/35



FLASKS, VOLUMETRIC, CLASS A WITH STOPPER 1

having inscription in white enamel. Manufactured from Borosilicate Glass.

	Capacity (mL)	Tolerance (+mL)	Height (mm)	Stopper Size
2064420/1	5	0.025	70	10/19
2064420/2	10	0.025	90	10/19
2064420/3	20	0.04	110	10/19
2064420/4	25	0.04	110	10/19
2064420/5	50	0.06	140	12/21
2064420/6	100	0.10	170	14/23
2064420/7	200	0.15	210	14/23
2064420/8	250	0.15	220	14/23
2064420/9	500	0.25	260	19/26
2064420/10	1000	0.40	300	24/29
2064420/11	2000	0.60	370	29/32
2064420 /12	5000	1.20	475	34/35

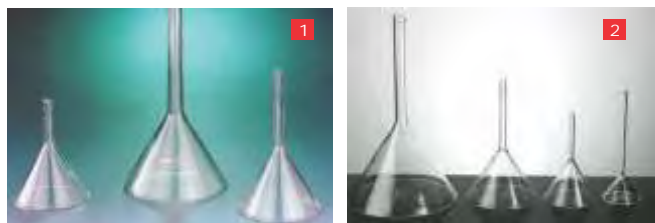
FLASKS, VOLUMETRIC, CLASS A, AMBER GLASS 2

having inscription in white enamel.

	Capacity (mL)	Tolerance (+mL)	Height (mm)	Stopper Size
2064425/1	25	0.04	110	10/19
2064425/2	50	0.06	140	12/21
2064425/3	100	0.10	170	14/23
2064425/4	200	0.15	210	14/23
2064425/5	250	0.15	220	14/23
2064425/6	500	0.25	260	19/26
2064425/7	1000	0.40	300	24/29



Filtration of the precipitate is usually a slow process and takes a lot of time. This time of filtration can be shortened if the filtration is carried out under the reduced pressure. For reducing the pressure, a filtration pump can be used. A conical flask with side tube will be connected to the filtration pump through pressure rubber tubing. The low pressure produced created inside the filtration flask helps in speedy filtration of the precipitate.



FUNNELS, LONG STEM, STUDENT'S 1

Conical shape, soda glass, long stem. Sizes (diameter) available are

2064500/1	5cm
2064500/2	6.25cm
2064500/3	7.5cm
2064500/4	10cm
2064500/5	12.5cm
2064500/6	15cm

FUNNELS, SHORT STEM, STUDENT'S

Conical shape, soda glass, short stem. Sizes (diameter) available are

2064530/1	5cm
2064530/2	6.25cm
2064530/3	7.5cm
2064530/4	10cm
2064530/5	12.5cm
2064530/6	15cm

FUNNELS, BOROSILICATE GLASS 2

Plain, 60° conical shape, long stem, Borosilicate glass. Sizes (diameter) available are

2064560/1	5cm
2064560/2	6.25cm
2064560/3	7.5cm
2064560/4	10cm
2064560/5	12.5cm



FUNNELS, LONG STEM, POLYPROPYLENE

Long stem funnels of polypropylene have smooth walls, 60° cone angle and external ribs to prevent air lock. Can be stem autoclaved and is resistant to acids / alkalis. Sizes (diameter) available are

	OD	ID	Stem Length
2064590/1	50mm	50mm	39mm
2064590/2	62mm	61mm	67mm
2064590/3	75mm	74mm	69mm
2064590/4	100mm	93mm	84mm
2064590/5	150mm	148mm	55mm



FUNNELS, ANALYTICAL, POLYPROPYLENE 3

Designed specifically for analytical chemistry. Similar to Cat No.2064590, but provided with both internal and external ribs to prevent air blockage. Sizes (diameter) available are

	Diameter	Stem Length
2064620/1	50mm	50mm
2064620/2	62mm	67mm
2064620/3	75mm	77mm
2064620/4	100mm	95mm

FUNNELS, POWDER 4

Short stem, made of Borosilicate glass. Sizes (diameter) available are

2064650/1	125mm	2064650/2	150mm
2064650/3	200mm	2064650/4	250mm



FUNNELS, DROPPING

Borosilicate glass. Cylindrical, with interchangeable glass / plastic stopper.

2064680 with glass stop-cock

2064740 with PTFE stop-cock

Available in capacities

1	50mL, Graduated	2	50mL, Un-graduated
3	100mL, Graduated	4	100mL, Un-graduated
5	250mL, Graduated	6	250mL, Un-graduated
7	500mL, Graduated	8	500mL, Un-graduated

FUNNELS, DROPPING, CYLINDRICAL, ROTAFLOW STOPCOCK, STEM INSIDE CONE

	Capacity (mL)	Cone and Socket Size (mm)
2064710/1	25	14/23
2064710/2	50	14/23
2064710/3	100	14/23
2064710/4	100	19/26
2064710/5	250	19/26
2064710/6	500	19/26
2064710/7	1000	19/26



FUNNELS, BUCHNER, POLYPROPYLENE 1

These two-piece funnels are light-weight, easy to clean and autoclavable. The upper portion can be snap-fitted with the lower one forming a vacuum seal that does not require greasing. Base of upper portion has a perforated plate. Sizes (diameter) available are

2064830/1	70mm
2064830/2	100mm

FUNNELS, HIRSCH 2

Sintered glass, with flat sintered glass plate. Size of the funnel and porosities available are

Porosity available are	A	B	C	D	E
	G0	G1	G2	G3	G4

	Disc Diameter	Capacity
2064860/1	20mm	20mL
2064860/2	30mm	60mL
2064860/3	30mm	75mL

FUNNELS, HIRSCH, PORCELAIN

Hirsch, with fixed perforated plate. Glazed. Sizes (diameter) available are

2064890/1	30mm
2064890/2	50mm
2064890/3	75mm
2064890/4	100mm
2064890/5	125mm
2064890/6	150mm



FUNNELS, SEPARATING, CONICAL, SQUIBB

Borosilicate glass. With interchangeable ground glass/plastic stopper.

2064920 With Glass Stop-cock 3
 2064950 With screw type Rotaflow Stop-cock 4

Available in capacities

1	50mL	2	100mL
3	250mL	4	500mL
5	1000mL		

FUNNELS, SEPARATING, CONICAL, PTFE KEY 6

	Capacity (mL)	Stopcock Bore (mm)	Stopper Size
2064980/1	50	2	19/26
2064980/2	100	2	19/26
2064980/3	250	3	19/26
2064980/4	500	4	24/29
2064980/5	1000	4	24/29
2064980/6	2000	6	34/35



FUNNELS, SEPARATING, PEAR SHAPE, GLASS STOPCOCK, STEM WITH CONE

	Capacity (mL)	Cone & Socket Size
2064990/1	25	14/23
2064990/2	50	14/23
2064990/3	50	19/26
2064990/4	100	14/23
2064990/5	100	19/26
2064990/6	250	14/23
2064990/7	250	19/26
2064990/8	500	19/26
2064990/9	500	24/29
2064990/10	1000	19/26



FUNNELS, SEPARATING, PEAR SHAPE, PTFE KEY

Supplied with PTFE key for non-stick, grease free performance & with polyethylene stopper. **2**

	Capacity (mL)	Stopcock Bore (mm)	Stopper Size
2065010/1	50	2	19/26
2065010/2	100	2	19/26
2065010/3	250	3	19/26
2065010/4	500	4	24/29
2065010/5	1000	4	24/29
2065010/6	2000	6	34/35
2065010/7	4000	6	34/35
2065010/8	6000	6	34/35

FUNNELS, SEPARATING, PEAR SHAPED, GLASS

Borosilicate glass. With interchangeable ground glass/plastic stopper.

2065040 With screw type Rotaflow Stop-cock **1**

2065070 With Glass Stop-cock **3**

Available in capacities

1 50mL	2 100mL	3 250mL
4 500mL	5 1000mL	

FUNNELS, SEPARATING, CONICAL, POLYPROPYLENE, WITH PTFE KEY **4**

Polypropylene separating funnel features excellent contact clarity and strength with inertness to acids / alkalis and is autoclavable. Comes with a leak-proof threaded screw-cap. The polypropylene stop-cock is fitted with PTFE key, and is push fitted to the stem of the separating funnel. Available in capacities

2065100/1	100mL
2065100/2	250mL
2065100/3	500mL

FUNNELS, THISTLE, LONG **5**

Stout walled, pitcher shaped funnel.

2065160 Neutral Glass

2065190 Borosilicate Glass

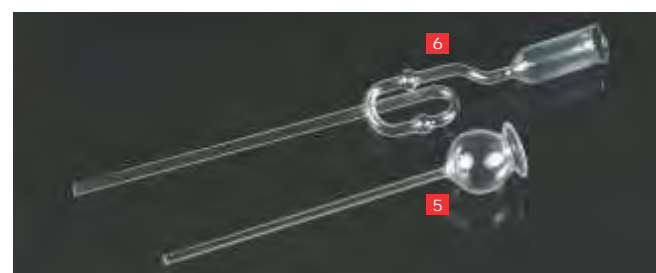
Sizes (stem length) available are

1 200mm	2 250mm	3 300mm
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FUNNEL THISTLE SAFETY **6**

With bend and safety bulb, to prevent splashing back of pouring liquid, length of stem about 300mm

2065220/1	Neutral glass,	2065220/2	Borosilicate glass
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INDICATOR PAPER, LITMUS, ECONOMICAL 1

Similar to Cat No. 2065460, but packed in cardboard case of 5 books each with 20 leaves. Total 100 leaves.

2065430/1	Red
2065430/2	Blue

INDICATOR PAPER, LITMUS 2

Good quality. Supplied in small plastic case of 5 books each with 20 leaves of size 63.5×10mm wide approx. Total 100 leaves.

2065460/1	Red
2065460/2	Blue

INDICATOR PAPER, LITMUS, DELUXE

Superior quality, standard pack. Supplied in small, handy, plastic box with 5 compartments with 5 books each of 20 leaves of size 63.5×10mm approx. Total 100 leaves.

2065490/1	Red
2065490/2	Blue



CONICAL MEASURES, POLYPROPYLENE 3

Useful for rapid measurement in small quantities. Moulded in polypropylene, these autoclavable measures have hexagonal base for excellent stability. Have good chemical resistance and raised graduation for easy reading. Available in capacities (mL)

2065550/1	12×1
2065550/2	25×1
2065550/3	50×2
2065550/4	125×5
2065550/5	200×5

MEASURING JUGS, SHORT FORM, POLYPROPYLENE

Short form jugs moulded from Polypropylene, feature excellent contact clarity, are autoclavable and have non-drip spout. Raised prominent graduations allows easy reading. Provided with excellent thumb grip on handle. Available in capacities (mL)



2065580/1	500	2065580/2	1000
2065580/3	2000	2065580/4	3000
2065580/5	5000		

MEASURING JUGS, LONG FORM, POLYPROPYLENE 4

Long form jugs, moulded in polypropylene, are clear, autoclavable and have good chemical resistance. Provided with handle for easy and convenient handling and have raised graduation for easy reading. Available in capacities (mL)

2065590/1	250	2065590/2	500
2065590/3	1000	2065590/4	2000



MORTARS AND PESTLES, PORCELAIN

Porcelain good quality, unglazed inside, glazed outside. Other sizes also available on specific request. Sizes (diameter) available are

2065610/1	75mm	2065610/2	100mm
2065610/3	125mm	2065610/4	150mm
2065610/5	175mm	2065610/6	200mm
2065610/7	250mm		



PIPETTES, GRADUATED, TYPE 2, CLASS B

Calibrated to deliver from any graduation line down to zero at the jet, graduations in blue enamel.

	Capacity (mL)	Graduation (mL)	Tolerance (\pm mL)	Delivery Time (Sec.)
2065750/1	1	0.01	0.01	2-10
2065750/2	2	0.02	0.02	2-12
2065750/3	5	0.05	0.05	5-14
2065750/4	10	0.10	0.10	5-17
2065750/5	25	0.20	0.20	9-21



PIPETTES, GRADUATED, TYPE 2, CLASS B

Calibrated to deliver from any graduation line down to zero at the jet, Graduations in permanent amber stain which is fused into the glass to ensure highest resistance to aggressive washing solutions.

	Capacity (mL)	Graduation (mL)	Tolerance (\pm mL)	Delivery Time (Sec.)
2065755/1	1	0.01	0.01	2-10
2065755/2	2	0.02	0.02	2-12
2065755/3	5	0.05	0.05	5-14
2065755/4	10	0.10	0.10	5-17
2065755/5	25	0.20	0.20	9-21

PIPETTES, GRADUATED, TYPE 2, CLASS A

Calibrated to deliver from any graduation line down to zero at the jet. Easy to read graduations in blue enamel.

	Capacity (mL)	Graduation (mL)	Tolerance (\pm mL)	Delivery Time (Sec.)
2065765/1	1	0.01	0.006	5-7
2065765/2	2	0.02	0.010	6-9
2065765/3	5	0.05	0.030	8-11
2065765/4	10	0.10	0.050	10-13
2065765/5	25	0.20	0.100	11-16



How to use pipette

- Don't use pipette to measure hot solutions
- Nozzle of pipette should not be broken
- Never hold the pipette from the bulb
- Do not suck strong acids or strong alkalies with pipette
- While sucking, lower end of the pipette should be well immersed in solution
- Always suck the solution slowly otherwise it may go in your mouth.
- Never blow out the last drop of solution from nozzle of the pipette

PIPETTES, ONE MARK, CLASS A, WORKS CERTIFIED

Supplied with calibration certificate. Markings in permanent amber stain. Pipette is printed with individual serial number and outflow time.

	Capacity (mL)	Tolerance (+ mL)	Delivery Time (sec.)
2065770/1	1	0.07	10-20
2065770/2	2	0.010	10-25
2065770/3	3	0.015	10-25
2065770/4	4	0.015	15-30
2065770/5	5	0.015	15-30
2065770/6	10	0.020	15-40
2065770/7	15	0.025	25-50
2065770/8	20	0.030	25-50
2065770/9	25	0.030	25-50
2065770/10	50	0.050	30-60
2065770/11	100	0.080	40-60

PIPETTES, ONE MARK, DIN, CLASS AS

Graduation and inscription in easy to read blue enamel.

	Capacity (mL)	Tolerance (+ mL)	Delivery Time (sec.)
2065775/1	1	0.007	5-9
2065775/2	2	0.01	5-9
2065775/3	5	0.015	7-11
2065775/4	10	0.02	8-12
2065775/5	25	0.03	10-15
2065775/6	50	0.05	13-18

PIPETTES, ONE MARK, CLASS A

Graduation and inscription in easy to read blue enamel.

	Capacity (mL)	Tolerance (+ mL)	Delivery Time (sec.)
2065780/1	1	0.007	10-20
2065780/2	2	0.010	10-25
2065780/3	5	0.015	15-30
2065780/4	10	0.02	15-40
2065780/5	25	0.03	25-50
2065780/6	50	0.05	30-60

PIPETTES, ONE MARK, CLASS A

Markings in permanent amber stain. Each pipette is printed with individual serial number and outflow time.

	Capacity (mL)	Tolerance (+ mL)	Delivery Time (sec.)
2065785/1	1	0.07	10-20
2065785/2	2	0.010	10-25
2065785/3	3	0.015	10-25
2065785/4	4	0.015	15-30
2065785/5	5	0.015	15-30
2065785/6	10	0.020	15-40
2065785/7	15	0.025	25-50
2065785/8	20	0.030	25-50
2065785/9	25	0.030	25-50
2065785/10	50	0.050	30-60
2065785/11	100	0.080	40-60





PIPETTES, GRADUATED, CLASS-B, TOP ZERO

Made of Borosilicate glass, with permanent stained graduation. Colour coded. Zero at top. Capacities available are

2065790/1	1 × 0.01mL	2065790/2	2 × 0.02mL
2065790/3	5 × 0.05mL	2065790/4	10 × 0.10mL
2065790/5	25 × 0.20mL		

PIPETTES, ONE MARK, CLASS B

Graduation and inscription in easy to read blue enamel. Tooled jets foreextra strength and to ensure correct outflow time.

	Capacity (mL)	Tolerance (+ mL)	Delivery Time (sec.)
2065795/1	1	0.015	5-20
2065795/2	2	0.020	5-25
2065795/3	5	0.030	7-30
2065795/4	10	0.40	8-40
2065795/5	25	0.60	10-50
2065795/6	50	0.100	13-60

PIPETTES, ONE MARK, CLASS B

Markings in permanent amber stain which are diffused into the surface of the glass for increased chemical resistance.

	Capacity (mL)	Tolerance (+ mL)	Delivery Time (sec.)
2065800/1	1	0.015	5-20
2065800/2	2	0.020	5-25
2065800/3	3	0.030	5-25
2065800 /4	4	0.030	7-30
2065800 /5	5	0.030	7-30
2065800/6	10	0.040	8-40
2065800/7	15	0.050	9-50
2065800/8	20	0.060	9-50
2065800/9	25	0.060	10-50
2065800/10	50	0.100	13-60
2065800/11	100	0.150	25-60

PIPETTES, GRADUATED, CLASS-B, BOTTOM ZERO

Made of Borosilicate glass, with permanent stained graduation. Colour coded. Zero at the bottom near jet. Capacities available are

2065820/1	1 × 0.01mL	2065820/2	2 × 0.02mL
2065820/3	5 × 0.05mL	2065820/4	10 × 0.10mL
2065820/5	25 × 0.20mL		



PIPETTES, CLASS-B, BOROSILICATE GLASS

Made of Borosilicate glass, bulb form, with one mark on upper stem indicating the volume, permanent amber stained graduation. Colour coded. Capacities available are

2065760/1	2mL	2065760/2	5mL
2065760/3	10mL	2065760/4	15mL
2065760/5	20mL	2065760/6	25mL
2065760/7	50mL	2065760/8	100mL

PIPETTES SEROLOGICAL

Calibrated for delivery up to jet. Last drop expelled by blowing, permanent amber graduation. Colour coded. Capacities available are

2065850/1	0.1 × 0.01mL	2065850/2	0.2 × 0.01mL
2065850/3	0.5 × 0.05mL	2065850/4	1.0 × 0.01mL
2065850/5	2.0 × 0.02mL	2065850/6	5.0 × 0.1mL
2065850/7	10.0 × 0.1mL	2065850/8	25.0 × 0.1mL

PIPETTES FOR MILK TESTING

Made of Borosilicate glass, permanent amber graduation. Capacity 10.75mL

2065880 Pipettes for Milk Testing

PIPETTES, DISPOSABLE

Disposable, Pasteur type, soft plastic, single piece blown from resistant polythene, without teat, supplied in pack of 250. Sizes (length) available are



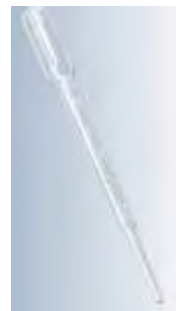
2065910/1	145m
2065910/2	230mm

PIPETTE PASTEUR

Disposable, Pasteur type, soft plastic, single piece blown from resistant polythene, without teat, supplied in pack of 250. Sizes (length) available are

Material: LDPE

	Capacity mL	Packing
5013150/1	1 mL	500 Pcs.
5013150/2	1 sterile	500 Pcs.
5013150/3	3 mL	500 Pcs.
5013150/4	3 sterile	500 Pcs.





PIPETTES, DROPPING, SMALL 1

Approximate capacity 1.7mL, Rubber teat of length 40mm, overall length about 110mm. supplied in pack of 10.

2065940/1 Narrow Mouth 2065940/2 Wide Mouth

PIPETTES DROPPING, BIG 2

Glass body of length about 125mm, supplied with soft rubber teat. Useful for dispensing liquid from test tubes. Supplied in pack of 5.

2065970 Pipettes, Dropping, Big



PIPETTE PUMP, PLASTIC

A fast releasing pipetting device for precise pipetting and zip quick emptying. The knurled thumbwheel can be rotated to draw up or dispense precise amount of liquids while the releaser may be pushed in for rapid emptying. The moulded plastic chuck has a silicon rubber collet inside to hold various pipettes of standard sizes. Resistant to acids / alkalis. Useful for hazardous / corrosive chemicals. Easily disassemble for cleaning and maintenance. Capacities available are

2066000/1 2mL 2066000/2 10mL
2066000/3 25mL



PIPETTE FILLER, BULB FORM, RUBBER

Bulb type for pipetting noxious solutions, microbial suspensions and other harmful or unpleasant solutions. Comprises a soft rubber bulb and three pinch valves controlling influx and efflux of pipette contents. Bulb diameter is 54mm. Available in colours

2066030/1 Red 3 2066030/2 Black 4
2066030/3 Grey

PIPETTE FILLER, BULB FORM, RUBBER, SUPERIOR 5

Similar to Cat No 2066030, but superior, improved design. Comprises a soft bulb made of natural rubber and two valves controlling influx and efflux of pipette contents. Bulb capacity up to 100mL.

2066060 Pipette Filler, Bulb Form, Rubber, Superior



RUBBER BULBS FOR PIPETTE 6

Pear shaped, useful with filling pipettes etc, especially where corrosive or harmful chemicals are involved. Available in capacities

2066090/1 5mL 2066090/2 10mL
2066090/3 15mL 2066090/4 25mL
2066090/5 50mL 2066090/6 100mL

BULBS, TEAT 7

Rubber for use with dropper pipettes. Available in sizes

2066120/1 Small 2066120/2 Medium
2066120/3 Large

MICRO PIPETTE TIPS

Moulded in polypropylene, specially designed for fixed & variable volume micro-pipettes. Capacities available are

2066210/1 0.2 - 10µL
2066210/2 2 - 20µL
2066210/3 200 - 1000µL
2066210/4 1000 - 5000µL



PIPETTE, MICROLITER, FIXED VOLUME

A range of economic, accurate, fixed volume micro-pipettes. Designed for exceptional comfort in use and high precision. Fully autoclavable to 121° C. Capacities available are

2066150/1 2µL 2066150/8 200µL
2066150/2 5µL 2066150/9 250µL
2066150/3 10µL 2066150/10 300µL
2066150/4 20µL 2066150/11 400µL
2066150/5 25µL 2066150/12 500µL
2066150/6 50µL 2066150/13 1000µL
2066150/7 100µL



PIPETTE, MICROLITER, VARIABLE VOLUME

A range of economic, accurate, variable volume with precise control micro-pipettes. These are continuously adjustable and are designed for exceptional comfort and accuracy. Easy to read digital display remains visible during pipetting. The volume adjustment wheel is recessed to prevent unintentional change, yet can be easily adjusted when required. Fully autoclavable to 121°C. Capacities available are

2066180/1	0.5 - 2 μ L	2066180/2	1 - 10 μ L
2066180/3	2 - 20 μ L	2066180/4	10 - 100 μ L
2066180/5	20 - 200 μ L	2066180/6	200 - 1000 μ L
2066180/7	1000 - 5000 μ L		

MICRO PIPETTE CONTROLLER

An economic, accurate, complete with rechargeable battery, pipette adapter.

2066240 Micro Pipette Controller



RETORT, STOPPERED, GLASS

Made of Borosilicate glass, with stopper. Available in capacities

2066270/1	100mL
2066270/2	150mL
2066270/3	200mL



SIPHON, SELF PRIMING 1

These siphons are self-priming. Container may be emptied inserting the open end of the tube in the liquid and pumping the bulb with stopcock closed. As soon as the liquid enters the bulb, the flow is automatically regulated. No further pumping is needed and the stopcock may be used to dispense whenever required. Available in pipe diameter

2066300/1	6mm	2066300/2	12.5mm
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SIPHON, WITH BELLOWS 2

Polyethylene, strong bellows, fine leak proof stop cock to dispense liquid, avoids spillage and burning problem. Acid-alkali proof.

2066330/1	Medium
2066330/2	Large



SPATULA, WITH SPOON, STAINLESS STEEL

One end flat and the other end spoon form. Apart from holding powdered solids, spoon end is ideal for crushing lumps, breaking cakes etc., while the flat rectangular end is useful for scraping chopping etc. Sizes (length) available are

2066360/1	125mm
2066360/2	150mm
2066360/3	180mm
2066360/4	210mm



SPATULA, FLAT, STAINLESS STEEL 3

With flat blade on either end. Sizes (length) available are

2066390/1	125mm	2066390/2	150mm
2066390/3	180mm		

SPATULA, TRULLA, STAINLESS STEEL 4

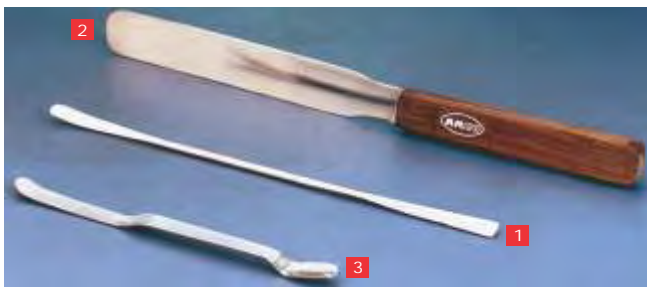
Spatula having recessed middle portion running along the complete length. Length about 175mm.

2066510 Spatula, Trulla, Stainless Steel

SPATULA, MICRO 6

Stainless steel spatula with small spoon shape at one end and other end flat with central portion circular wire shaped. Sizes (length) available are

2066520/1	100mm	2066520/2	120mm
2066520/3	150mm	2066520/4	190mm



SPATULA, CHATTAWAY, STAINLESS STEEL 1

'CHATTAWAY' pattern, one end flat and the other end bent up. Sizes (length) available are

2066420/1	125mm
2066420/2	150mm
2066420/3	200mm

SPATULA, PALETTE KNIFE, STAINLESS STEEL 2

'PALETTE KNIFE', flat, flexible blade with parallel sides in handle. Sizes (blade length) available are

2066450/1	100mm
2066450/2	150mm
2066450/3	200mm

SPATULA, NUFFIELD, STAINLESS STEEL 3

'NUFFIELD' pattern, with a scoop at one end and a bent-up flat blade at the other. Sizes (length) about 140mm.

2066480 Spatula, Nuffield, Stainless Steel

POLICEMEN STIRRING RODS

This is, in fact, a multipurpose product made of polypropylene, designed in the form of circular rods with flat ends, thus enables its use as stirrer as well as spatula. The two different shaped flattened ends of this rod form two small spatulas. Available in size 245×6mm (length × diameter).



2066530 Policemen Stirring Rods



SPATULA, WITH SPOON, POLYPROPYLENE

Moulded in polypropylene, consist of spoon at one end, while other end is flat construction with a knife edge. Sizes (length) available are

2066540/1	150mm	2066540/2	200mm
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STIRRERS

Made of polypropylene, these stirring rods are non-corrosive, non-staining and are very useful for stirring different solutions in the laboratory. These stirrers have been designed to be tough and long-lasting in use. Sizes (length × diameter) available are



2066550/1	250×10mm
2066550/2	200×7mm
2066550/3	250×7mm
2066550/4	300×7mm



SPIRIT LAMP, BULB SHAPED, GLASS 4

With metal wick holder screw-on type and glass top cover, superior quality. Capacities available are

2066570/1	60mL	2066570/2	125mL
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SPIRIT LAMP, POLYHEDRAL SHAPED, GLASS

Polyhedral, heavy duty allows the position of flame at just the right angle for each task, complete with cap and one wick.

2066600 Spirit Lamp Glass 9

SPIRIT LAMP

Sheet die pressed, with woven wick in metal holder, screw on cap. Capacity 100mL

2066630/1	Aluminium 6	2066630/2	Brass
2066630/3	Stainless Steel 7		

ALCOHOL BURNER, STAINLESS STEEL 8

With Knurled wheel to raise the wick and cap to extinguish the flame. but the capacity 60mL and made of stainless steel Dimension 65×70mm diameter .

2066660 Alcohol Burner, Stainless Steel

ALCOHOL BURNER, ALUMINIUM

Self contained and fully portable, providing a convenient source of heat where a mains gas supply is not available. The burner head is of the mecker type for optimum efficiency. Made of spun aluminium. The reservoir has a low center of gravity to ensure stability and prevent tipping-off. With wick, cork washer, wick holder with threaded cap, adjusting tube, and conical flame extinguishing cap. For use with denatured ethyl alcohol only. Capacity 175mL.



2066690 Alcohol Burner, Aluminium



SPIRIT LAMP, BULB SHAPED, GLASS, SUPERIOR

Similar to Cat No. 2066570, but with plastic wick holder screw-on type and glass top cover, push fit type, superior quality.

2066720 Spirit Lamp, Bulb Shaped, Glass, Superior 1

SPIRIT LAMP, CYLINDRICAL, GLASS, SUPERIOR

Similar to Cat No. 2066570, but with plastic wick holder screw-on type and plastic top cover, push fit type, superior quality.

2066750 Spirit Lamp, Cylindrical, Glass, Superior 2



ALCOHOL BURNER, BRASS 3

Similar to Cat No. 2066690, but completely made of brass.

2066780 Alcohol Burner, Brass

ALCOHOL BURNER, STAINLESS STEEL, SUPERIOR 4

Similar to Cat No. 2066660, but improved design, better quality superior model.

2066810 Alcohol Burner, Stainless Steel, Superior

SPOTTING PLATES

Made of porcelain, glazed.

- 2066840/1 With 6 Depressions
- 2066840/2 With 12 Depressions



STOPPER, CORK, BARK 5

Sizes available are

	Size No.	Top (mm)	Bottom (mm)	Length (mm)
2066870/1	000	6	4	13
2066870/2	00	8	5	13
2066870/3	0	10	7	13
2066870/4	1	1	8	16
2066870/5	2	3	9	18
2066870/6	3	4	10	19
2066870/7	4	6	11	21
2066870/8	5	17	13	22
2066870/9	6	19	14	24
2066870/10	7	21	15	25
2066870/11	8	22	16	27
2066870/12	9	23	18	28
2066870/13	10	25	19	31
2066870/14	11	27	21	31
2066870/15	12	28	22	31
2066870/16	13	30	24	31
2066870/17	14	31	25	31
2066870/18	15	33	27	31
2066870/19	16	35	9	31
2066870/20	17	36	0	38
2066870/21	18	38	31	38
2066870/22	19	39	33	38
2066870/23	20	41	34	38
2066870/24	22	44	38	38
2066870/25	24	47	40	38
2066870/26	26	51	44	38

Packing size for the stoppers available as per customer's choice.

STOPPER, CORK, BARK, ASSORTED 6

Set of stoppers in assorted sizes from No. 00 to No. 18, supplied in pack of 100.

2066900 Stopper, Cork, Bark, Assorted



RUBBER STOPPER

Solid rubber stoppers; soft, superior quality rubber resistant to acid, alkali and ammonia. Number of cork indicated on the face.

Sizes available are

	Size No.	Top (mm)	Bottom (mm)	Length (mm)
1	0	13	9	15
2	1	14	11	18
3	2	16	13	20
4	3	19	14	21
5	4	21	15	22
6	5	22	17	23
7	6	24	20	24
8	7	26	20	27
9	8	26	21	27
10	9	28	21	31
11	10	30	26	33
12	11	33	30	33
13	12	34	30	34
14	13	38	31	37
15	14	41	32	42
16	15	43	34	40
17	16	45	35	36
18	17	49	40	40
19	18	53	48	33
20	19	58	44	45
21	20	60	51	56

Packing size for the stoppers available as per customer's choice.

2066930 Rubber Stopper without Hole

2066960 Rubber Stopper with 1 Hole 1

2066990 Rubber Stopper with 2 Holes 2



RUBBER STOPPERS SOLID, ASSORTED

Mixed Pack containing assorted sides in different quantities: Nos. 0, 1, 2, 3, and 4 - 7 each; and Nos. 5, 7, 9, 10, and 11 - 3 each. Total pack of 50.

2067020 Rubber Stoppers Solid, Assorted 4

RUBBER STOPPERS WITH ONE HOLE, ASSORTED

Set of assorted stopper similar to Cat No. 2067020, but with stoppers having one hole.

2067050 Rubber Stoppers with One Hole, Assorted

RUBBER STOPPERS WITH TWO HOLES, ASSORTED

Set of assorted stopper similar to Cat No. 2067020, but with stoppers having two holes.

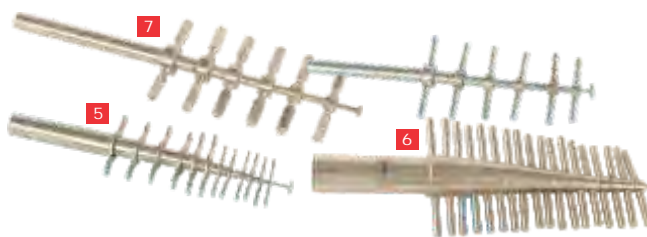
2067080 Rubber Stoppers with Two Holes, Assorted



RUBBER STOPPER SILICON

Translucent stoppers of high grade silicon rubber, highly elastic, odourless, suitable for use over a temperature range -50 to 250°C, can be sterilized by steam or by hot air. Has excellent chemical and high temperature stability. Sizes available are

	Size No.	Top (mm)	Bottom (mm)	Length (mm)
2067110/1	9	11	9	20
2067110/2	11	14	11	24
2067110/3	13	16	13	24
2067110/4	15	18	15	24
2067110/5	17	20	17	26
2067110/6	18	21	18	26
2067110/7	19	22	19	28
2067110/8	23	25	23	28
2067110/9	25	28	25	28
2067110/10	27	31	27	32
2067110/11	29	33	29	32
2067110/12	31	36	31	35
2067110/13	33	38	33	38



CORK, BORERS, BRASS

For both rubber as well as cork stoppers. Nickel-plated brass. Each cutting tube mounted with safety under-flange in shaped handle ensuring that operator can't be injured by a dislodged tube. Includes iron rod for cleaning borers. Sizes available are

1 Set of 6: For hole diameters 4-10mm

2 Set of 12: For hole diameters 4-18mm

3 Set of 18: For hole diameters 4-27mm

2067140 Economical, with flat-strip shaped handle 5

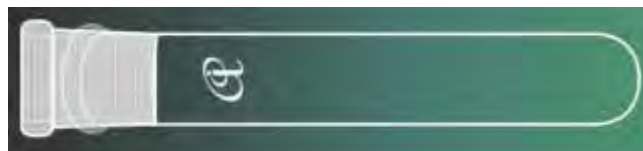
2067150 Similar to Cat No. 2067140, but handle of round brass rod 6

2067170 Deluxe, from thicker brass pipe, superior quality with handle of hexagonal brass rod 7

TUBE, TEST, WITHOUT RIM, MEDIUM WALL GRADUATED

Rimless for greater convenience in plugging and rack storage.

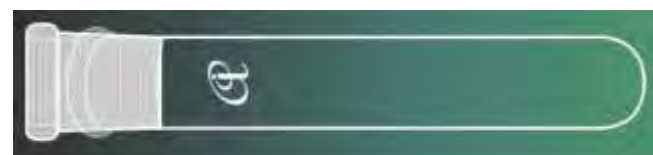
	Dimensions OD x length (mm)	Wall Thickness (mm)
2067410/1	10x75	1.0
2067410/2	12x75	1.0
2067410/3	12x100	1.0
2067410/4	16x100	1.2
2067410/5	16x125	1.2
2067410/6	16x150	1.2
2067410/7	16x160	1.2
2067410/8	18x180	1.2
2067410/9	18x150	1.2
2067410/10	24x150	1.2
2067410/11	24x200	1.2



TEST TUBE WITH SOCKET

without stopper

	Cone	O.D. (mm)	Overall Length (mm)	Capacity (ml)
2067480/1	10/19	14	100	5
2067480/2	12/21	16	100	10
2067480/3	14/23	18	100	14
2067480/4	14/23	18	125	16
2067480/5	14/23	18	150	19
2067480/6	19/26	22	100	19
2067480/7	19/26	22	150	31
2067480/8	24/29	28	150	54
2067480/9	24/29	28	200	75
2067480/10	34/35	40	250	195



TUBES, TEST WITH STOPPER

Supplied with interchangeable polyethylene stopper.

	Dimensions OD x length (mm)	Capacity (mL)	Stopper Size
2067420/1	13x100	5	10/19
2067420/2	18x125	10	14/23
2067420/3	22x150	25	19/26
2067420/4	26x200	50	24/29



TEST TUBES, WITH SIDE ARM

With side arm, made of Borosilicate glass. Approximate sizes available are

	Length×OD
2067440/1	125×17mm
2067440/2	150×19mm
2067440/3	150×24mm

TEST TUBES, WITH BENT SIDE ARM

Borosilicate glass. With horizontal side arm bent downwards at an angle of 45°, approximate size (height × diameter) 150 × 24mm.

2067470 Test Tubes, with Bent Side Arm

TEST TUBES, POLYPROPYLENE

Polypropylene test tubes, provide excellent option for RIA, coagulation and bacteriology etc. Features excellent contact clarity and are autoclavable. Provided with cap screwed on to the tube, making it usable by filling it up to the brim. Size (height × diameter) 100 × 16mm.



2067500 Test Tubes, Polypropylene



TEST TUBE CAP

This transparent polypropylene cap for Test Tubes proves to be an excellent protection to the contents of the tubes. The grooves inside the cap tighten the fitting on the tube while the outer grooves would hold identification labels. The built-in seal ring would set in the tube making the combination a leakproof one.

Material: Polypropylene

	Particulars	Packing
5014150	Cap for Test Tube ø 25 mm	100 Pcs.



Saturated sodium bicarbonate solution, i.e., baking soda solution can be used to neutralize acids or bases spills before wiping them up. However, if acid or base spills on your skin, don't waste time looking for the solution, rinse with large amounts of water immediately. Always keep saturated sodium bicarbonate solution in the laboratory.



TUBING, RUBBER, MEDIUM PRESSURE 1

Red coloured, extra soft rubber tubing having more wall thickness making it capable of withstanding low to moderately high pressures. Resistant to acids, alkalis. Supplied in Pack of 10m. Sizes (bore x wall thickness) available are

2068010/1	3x3.0	2068010/2	4.5x3.0
2068010/3	6x3.0	2068010/4	8x3.0
2068010/5	9x3.0	2068010/6	10x3.0
2068010/7	12.5x4.5		

TUBING, RUBBER, HIGH PRESSURE 2

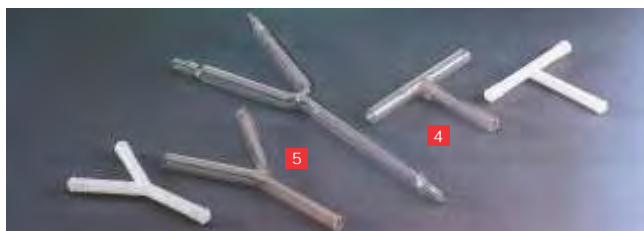
Red coloured, extra soft tubing, with sufficiently thick wall meant for high pressure use. Resistant to acids, alkalis. Supplied in Pack of 10m. Sizes (bore x wall thickness) available are

2068040/1	3x4.5	2068040/2	4.5x4.5
2068040/3	6x4.5	2068040/4	8x4.5
2068040/5	9x4.5	2068040/6	10x4.5
2068040/7	12.5x4.5		

TUBING, RUBBER, SILICON 3

Highly elastic, non-toxic, heat resistant from -50°C to 250°C, repeatedly autoclavable, flexible odourless and transparency of the tubes allows clear visibility of the flowing fluid. Sizes (bore x wall thickness) available are

2068100/1	2x1.0	2068100/2	2x2.0
2068100/3	3x1.0	2068100/4	4x1.5
2068100/5	5x1.5	2068100/6	6x1.5
2068100/7	7x2.0	2068100/8	8x1.5
2068100/9	8x2.0	2068100/10	10x1.5
2068100/11	10x2.0	2068100/12	14x3.0



TUBING CONNECTORS, T-SHAPED & Y-SHAPED

Three way T-shaped connectors, ruffled end for rubber tubing, 8mm outside diameter.

2068130/1	Polypropylene.	4
2068130/2	Glass.	5



CONNECTORS (T & Y-NEW)

These connectors add to the existing range of connectors. The crest & valley structure provided at all the ends of the connectors give excellent leakproof grip to the tube.

Material: Polypropylene.

	Particulars	Packing
5011500/1	T-Connectors 6mm	36 Pcs.
5011500/2	Y-Connectors 6mm	36 Pcs.
5011500/3	T-Connectors 8mm	36 Pcs.
5011500/4	Y-Connectors 8mm	36 Pcs.
5011500/5	T-Connectors 10mm	36 Pcs.
5011500/6	Y-Connectors 10mm	36 Pcs.



CONNECTORS (CROSS)

These four way connectors prove to be an excellent option for achieving leakproof joints in tubing connections.

Material: Polypropylene

	Particulars	Packing
5011550/1	Cross Connectors-6mm	36 Pcs.
5011550/2	Cross Connectors-8mm	36 Pcs.
5011550/3	Cross Connectors-10mm	36 Pcs.



WATCH GLASSES

Polished, concave upward with ground edges, made from selected glass sheet. Pack of 10 in card board box. Sizes (diameter) available are

2068220/1	50mm	2068220/2	60mm
2068220/3	75mm	2068220/4	90mm
2068220/5	100mm	2068220/6	125mm
2068220/7	150mm		



ABSORPTION TUBES, U-FORM

Soda glass, with strong walls. Sizes (length × diameter) available are

2068430/1	100×12mm	2068430/2	125×15mm
2068430/3	150×20mm		



ABSORPTION TUBES, U-FORM, WITH SIDE TUBES

U-form soda glass with strong walls and short side tube near top of each arm. Sizes (length × diameter) available are

2068460/1	100×12mm	2068460/2	125×15mm
2068460/3	150×20mm		



ABSORPTION TUBES, U-FORM, STOPPERED

Borosilicate glass with side tubes. Limbs closed at the top by hollow ground interchangeable key stoppers which, when rotated, open or seal the side tubes. Sizes (length × diameter) available are

2068490/1	100×12mm	2068490/2	125×15mm
2068490/3	150×20mm		

ABSORPTION TUBE, ARNOLD

Borosilicate glass with two bulbs, overall height 125×25mm diameter.

2068520 Absorption Tube, Arnold



DRYING TUBE

	Cone
2068530/1	14/23
2068530/2	19/26
2068530/3	24/29
2068530/4	29/32



TUBES, AIR LEAK / GAS INLET

	Socket
2068540/1	14/23
2068540/2	19/26
2068540/3	24/29
2068540/4	29/32

TUBE 'U'

with two sockets

	Socket
2068545/1	14/23
2068545/2	19/26





BOSS HEAD, DIE CAST, LARGE

Extra large sized, die cast alloy metal boss head for heavy duty laboratory applications in school and colleges. The boss head has two V-grooves orthogonal to each other to accept rods of diameter up to 20mm, which are secured through thumb screws having moulded plastic knob-shaped head for non-slip grip.

2070320 Boss Head, Die Cast, Large

CLAMPS, HOOK COLLAR

Comprises an annular ring with a suspension hook and tightening thumb screw. Made of plated steel. Useful for suspending masses, pulleys, spring balances etc., from the vertical as well as horizontal support rods. Available for rod sizes (inner diameter)



2070330/1 12.5mm

2070330/2 19.0mm



CLAMP UNIVERSAL

Made of sheet metal, enamel painted, spring controlled curved jaws, two pronged, cork lined, which can accept about 12 to 50mm diameter articles, with brass wing nut, for tightening the clamp jaws. Fitted with 15cm long plated MS rod for mounting on suitable boss-head.

2070360 Clamp Universal **1**

CLAMP RETORT, FOUR PRONGED

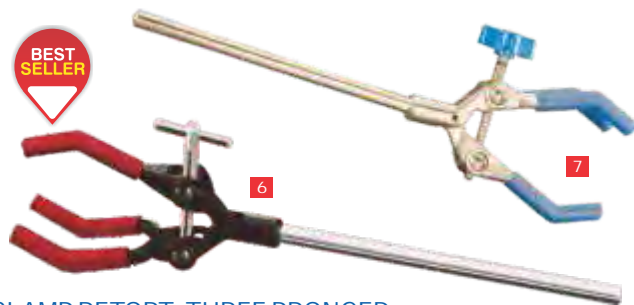
Clamping jaws of Die-cast alloy metal, having four cork lined prongs to take articles from 2-90mm diameter. The design of the jaw ensures a firm grip at all angles of opening. Plated steel thumb screw for tightening the clamp jaws. Fitted with 15cm long plated MS rod for mounting on suitable boss-head.

2070400/1 Clamp Retort, with painted clamping jaws **2**

2070400/2 Clamp Retort. with zinc plated clamping jaws **3**

2070400/3 Similar to Cat No. 2070400/2, but clamping steel screw having moulded plastic head **4**

2070400/4 Similar to 2070400/1 with a opening dia. of 0-80mm **5**



CLAMP RETORT, THREE PRONGED

Three Pronged, die-cast alloy metal, with rubber lined jaws for positive gripping of objects to be held. Plated metal thumb screw for tightening the clamp jaws. Accepts articles up to 75mm diameter. Fitted with 15cm long mild steel or aluminium rod.

2070440/1 Clamp Retort with clamping screw of plated brass **6**

2070440/2 Clamp Retort with clamping steel screw having moulded plastic head. Jaws mounted on metal rod of length 250mm; Jaw capacity 100mm. **7**



CLAMP RETORT, TWO PRONGED

Two pronged cork lined jaws, comprises jaws of metal alloy pressure die-casting with other parts of brass plated. Jaws clamp accepts articles from 15-60mm diameter actuated by brass nickel-plated pummels and twin screw. Fitted with 15cm long mild steel or aluminium rod.

2070480 Clamp Retort, Two pronged

CLAMP, CO-AXIAL

Die-cast aluminium-alloy jaws, with asbestos sleeves, spring controlled, adjustable by co-axial brass nut and holds objects up to 75mm diameter. Fitted with about 28cm long plated mild steel rod of 10mm diameter.

2070560 Clamp, Co-axial





BURETTE CLAMP, FISHER TYPE, METAL, DIE CAST

Fisher type clamps, for holding burettes, complete body of die-cast metal making it light-weight, durable and sturdy. Provided with a spring loaded positive grip and release. The special design provides vice-like grip to the burette for a positive clamping. Bosshead clamp secures it firmly at desired position on the rod of about 13mm diameter.

- 2070800/1 Single; for 1 burette
- 2070800/2 Double; for 2 burettes
- 2070800/3 Single clips to hold the burette

BURETTE CLAMP, FISHER TYPE, POLYPROPYLENE

Non-corrosive, unbreakable clamps, moulded in polypropylene, grip the burette firmly without obstructing graduations. The spring loaded jack in the middle, with concealed spring, provides vice-like grip to the burette and prevents it from slipping. Central holder provided with tapered wedges



to ensure a firm grip on the rods up to 12.5mm diameter. Suitable for use with Retort Stand, Polypropylene, Cat No. 2071920.

- 2070840/1 Single; for 1 burette
- 2070840/2 Double; for 2 burettes



BURETTE CLAMP, ALUMINIUM EXTRUSION

Made of specially designed extruded section of non corroding metal/light alloy, grey hammered, stove enamel with nickel plated parts. Special design provides ease in use and allows quick mounting/dismounting of burettes. Complete with universal boss head for fixing on rods upto 12.5mm diameter.

- 2070880/1 Single; for 1 burette
- 2070880/2 Double; for 2 burettes

FUNNEL HOLDER, POLYPROPYLENE

Corrosion free funnel holder of polypropylene can hold funnels from diameter 75mm to 150mm. Additional holder plate included that can be placed on the holder to take funnels from 25mm to 75mm diameter. Provided with two tapered wedges to ensure firm grip on retort stand rods of diameters from 9.5 to 12.5mm.



2070920 Funnel Holder, Polypropylene

SEPARATING FUNNEL HOLDER

This non-corrosive separating funnel holder has a front opening providing clear view of the solutions and allows unobstructed placement of separating funnels. Provided with two tapered wedges to ensure firm grip on retort stand rods of diameters from 9.5 to 12.5mm.



2070960 Separating Funnel Holder



TEST TUBE HOLDER, WOODEN 1

Two wooden pieces connected together by a spring for opening / closing of jaws.

- 2071000/1 Length about 18cm, accepts tubes of diameter 11-19mm
- 2071000/2 Length about 26cm, accepts tubes of diameter 11-30mm

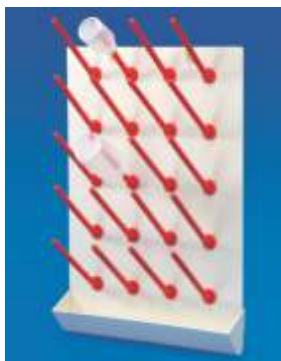
TEST TUBE HOLDER, METAL STRIP 2

Two metal strips mounted in a wooden handle, with sliding collar and free end curved to accept tubes of diameter 22-32mm.

- 2071040/1 Metal strips of MS, Chrome Plated
- 2071040/2 Metal strips of Brass

DRAINING RACK, PLASTIC

The draining rack provides excellent assistance for post wash draining of tubes and bottles in the laboratory. The back plate has 20 holes into which pegs are securely mounted with the help of screw-nuts. Bottom of the rack has a tray for collecting the drained water seeping down from the draining objects, which can be further transferred to a container via drain tube. All plastic construction makes it non-corrosive, and non-staining.



2071980 Draining Rack, Plastic

DRAINING BASKET

As the name suggests, this basket with wide net like structure on all sides prove really useful for draining different laboratory apparatus after washing them. Made of polypropylene, this basket can be repeatedly autoclaved.



Material: Polypropylene

	Particulars	Packing
5020300	400 x 400 x 100 mm	6 Pcs.



PETRI DISHES RACK

These racks have clear acrylic construction with white polycarbonate posts and are very useful during inoculation, incubation and storage. Visibility from all sides enables the culture to be seen and checked during incubation.

- 2072000/1 Rack for 90mm Petri Dishes: Holds 60 Petri dishes of 90mm diameter
2072000/2 Rack for 60mm Petri Dishes: Holds 56 Petri dishes of 90mm diameter



BURETTE STAND, WOODEN

Completely made of seasoned hardwood, well-polished with moulded plastic clamping screws. Rod size approx. 460×16mm (height × diameter).

- 2072040/1 For single burette, with base of size 200×100mm **1**
2072040/2 For double burette, with base of size 290×110mm

BURETTE AND FUNNEL STAND

To hold one burette and one funnel simultaneously. Polished hardwood with cork lined jaws and moulded plastic screws. Base fitted with non-skid feet for stability. Overall height 490mm, base size 330×110mm.

- 2072080 Burette and Funnel Stand **2**



STAND FOR DROPPING BOTTLES

Sturdy and durable, made of hardwood, with holes of about 45mm diameter for dropping bottles up to 60mL capacities. Available in configurations

- 2072120/1 For 6 Bottles
2072120/2 For 12 Bottles

FUNNEL STAND, WOODEN **3**

Made of seasoned hardwood, well-polished, with clamping screw. Size of wooden rod is approx. 460×16mm (height × diameter). Single base 200×110mm. Double base 290×110mm approx.

- 2072160/1 Single, for 1 funnel
2072160/2 Double, for 2 funnels

GENERAL

CLAMPS & STANDS



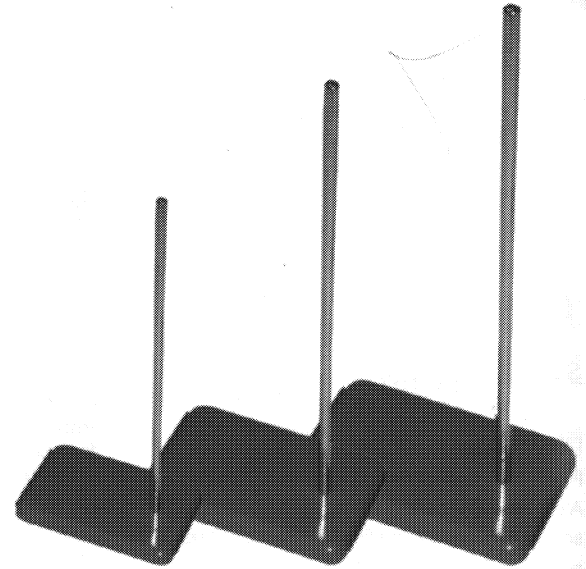
SG161-SG165, SW651-SW655

LABORATORY JACKS

It is made of Mild steel. It is knob operated scissor action lifting mechanism for quick and easy height adjustment. Painted with chemical resistance mat black paint. The jack is suitable for hot plates, Burners, Baths, Glassware and other Laboratory equipments.

SG161-SG165 Fitted with hylum sheet
SW651-SW655 Fitted without hylum sheet

Cat No	Cat No	Size	Capacity(Approx)
SG161	SW651	10x12cm	8kg
SG162	SW652	12X14cm	8kg
SG163	SW653	20X20cm	25kg
SG164	SW654	25x25cm	30kg
SG165	SW655	30X30cm	35kg



SG679-SG682

RETORT STAND BASE(WITHOUT ROD)

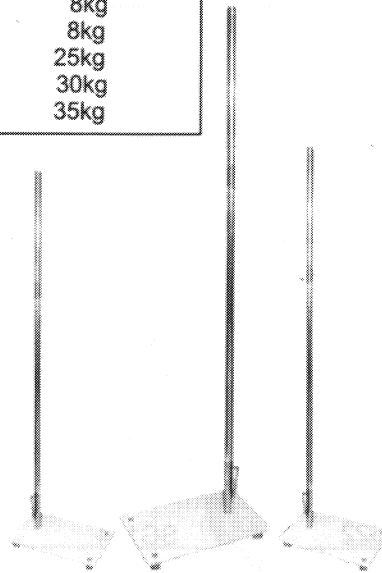
Made of Mild Steel sheet. Finished in blue and fitted with rubber feet.

Cat No	Size(mm) Approx
SG679	160X100
SG680	200X125
SG682	250X160

RETORT STAND BASE(WITHOUT ROD)

Retort Stand Base made of mild steel sheet having approximate thickness 4mm. Powder coated finish. Fitted with 4 fixed feet.

Cat No	Size(mm)
SW395	150X100
SW396	175X125
SW397	200X125
SW398	225X150
SW399	250X150
SW400	300X175
SW401	300X200

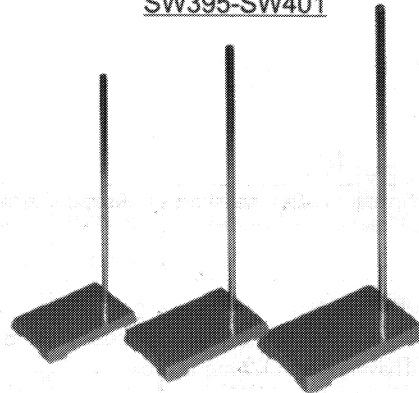


SW395-SW401

RETORT STAND BASE(WITHOUT ROD)

Made of Cast iron metal with corrosion resistant finish.

Cat No	Size(mm)
SG001	150X100
SG002	175X125
SG003	200X125
SG004	225X150
SG005	250X150
SG006	300X175
SG007	300X200



SG001-SG007



SW093

INSTRUMENT TROLLEY

Push handle. Trays made of Stainless Steel. Rest made of mild steel pipe. Fitted on antistatic castors Dia 50mm. Removable upper and lower stainless steel shelves. Size 80 x 55 x 100 cm (L x W x H). Tray size 75 x 55 cm.

SW093



WOODEN PIPETTE STAND

Polished wooden stand to hold 12 or 24 pipettes vertically.

2072280 Wooden pipette stand



PIPETTE STAND, HORIZONTAL, POLYPROPYLENE

Completely detachable stand, moulded in polypropylene, is totally non-corrosive and unbreakable, and can hold a total of 12 pipettes, 6 on each side. This autoclavable stand has two sides attached to each other through three metallic rods coated with polypropylene.

2072320 Pipette Stand, Horizontal, Polypropylene

PIPETTE STAND, VERTICAL, HEAVY, POLYPROPYLENE

Stable, non-corrosive, detachable stand with heavy base, which can hold maximum of 28 pipettes of up to 14mm diameter. The base measures 225mm in diameter and a polypropylene coated square rod about 375mm in length is screwed on to the base. This rod carries two discs, upper one has holes for holding pipettes while lower one has pilot holes for supporting tips of the pipettes from where liquid drains out to the base. The distance between both the discs is adjustable according to length of the pipette.

2072360 Pipette Stand, Vertical, Heavy, Polypropylene



PIPETTE STAND, VERTICAL, LIGHT, POLYPROPYLENE

Moulded in polypropylene, the stand holds maximum of 94 pipettes and is rotatable about vertical axis for convenient selection of any particular pipette. The lower rotating disc has four concentric annular troughs with tapered sides and open bottoms, which cradle the pipette tips protectively and permits liquids drops to run off. The upper disc has grid pattern that corresponds to the bottom disc and keeps pipettes vertical. Stand can be easily assembled and disassembled.

2072400 Pipette Stand, Vertical, Light, Polypropylene



PIPETTE STORAGE RACK

Unbreakable rack, made of ABS plastic, useful for holding and storing pipettes. The rack holds 1 to 25mL pipettes in bulk, in packs or in common sizes of cans. It features 4 different compartments, angled, for easy loading and retrieval. Unique windows allow viewing of enclosed pipettes to determine supply level. ABS plastic construction makes it scratch resistant and easily cleanable. Each rack comes with two accessory attachments for holding pipette filler and pipette bulb.

2072410 Pipette Storage Rack





TEST TUBE STAND, 3 TIER, POLYPROPYLENE

Made of polypropylene, these racks feature 3-tier design that provides clear view of tube contents, and allows convenient insertion and removal of tubes. Chemical and corrosion resistant, autoclavable, and can withstand sub-freezing temperatures. Available for (tubes diameter × No. of tubes)

2072840/1	13mm × 31 tubes	2072840/2	16mm × 31 tubes
2072840/3	20mm × 20 tubes	2072840/4	25mm × 12 tubes
2072840/5	25mm × 18 tubes	2072840/6	32mm × 12 tubes
2072840/7	25mm × 36 tubes	2072840/8	13mm × 18 tubes
2072840/9	15mm × 18 tubes	2072840/10	18mm × 12 tubes
2072840/11	13mm × 62 tubes	2072840/12	16mm × 62 tubes
2072840/13	20mm × 40 tubes	2072840/14	13mm × 48 tubes
2072840/15	13mm × 75 tubes		



TEST TUBE STAND, 3 TIER, POLYCARBONATE

Made of polycarbonate. Excellent for use in tissue culture labs, Pharmaceuticals testing. Three tier design. End plates have handgrips for easy handling. With transparent upper and middle plates. Autoclavable, can withstand sub-freezing temperature.

2072880/1	13mm × 31 tubes	2072880/2	16mm × 31 tubes
2072880/3	20mm × 20 tubes	2072880/4	25mm × 12 tubes
2072880/5	13mm × 62 tubes	2072880/6	16mm × 62 tubes
2072880/7	20mm × 40 tubes	2072880/8	25mm × 24 tubes
2072880/9	25mm × 18 tubes	2072880/10	25mm × 36 tubes
2072880/11	32mm × 12 tubes		

MICRO TIP BOX

These unique boxes are moulded in Polypropylene and are therefore autoclavable. The Box itself is clear providing an excellent view of the tips inside while



a table like structure is provided inside to hold the tips. The tip holding spaces are uniformly placed to facilitate the use of multi channel pipettes. The cover is joined to the base through ball catcher hinges and provides excellent protection to the tips. Material Polypropylene

	Particulars	Packing
5021250/1	For 96 Micro Tips of 2-200ml	6 Pcs.
5021250/2	For 100 Micro Tips of 200-1000ml	6 Pcs.

MICRO TIP BOX (NEW)

The unique feature of these tip boxes is the improved robust hinge design which prevents the top from being easily disengaged from the bottom of the box.

Material Polypropylene



	Particulars	Packing
5021300/1	For 96 Micro Tips of 2-10ml	6 Pcs.
5021300/2	For 96 Micro Tips of 2-200ml	6 Pcs.
5021300/3	For 100 Micro Tips of 200-1000ml	6 Pcs.



TEST TUBE STAND, SHEET METAL, 3 TIER

Made of sheet metal, from thick 18SWG sheet, 3-tiered construction. Sizes available are

	Hole Diameter (mm)	No. of Holes				
		A	B	C	D	E
1	12	12	18	24	36	48
2	15	12	18	24	36	48
3	18	12	18	24	36	48
4	25	12	18	24	36	48

2072920	Made of Aluminium, Anodized
2072960	Made of Stainless Steel



TEST TUBE STAND, ALUMINIUM, Z-SHAPED

Made of metal sheet, Z type, new design, single piece fabrication, one row of holes of 30mm diameter, the second row of holes of 25mm diameter and third row of hole of 16mm diameter.

2073000 Test Tube Stand, Aluminium, Z-Shaped



THERMOMETER STAND 1

Made of sheet aluminium, rectangular Z-shaped, supports 18 thermometers in three rows each of 6 holes. Base-plate has foam cushions to protect the thermometer bulbs.

2073040 Thermometer Stand

THERMOMETER RACK 2

Rack is used to hold thermometers in vertical manner and safely hold the tip of the thermometers. Max. capacity of 25 thermometers.

2073050 Thermometer Rack



STAND, TRIPOD, TRIANGULAR, STAINLESS STEEL 3

Triangular top, made of Stainless Steel wire. Lower end of legs covered with plastic cap to avoid scratching the work surface. Sizes (length of side × height) available are

2073080/1 125 × 200mm
2073080/2 150 × 200mm

STAND, TRIPOD, TRIANGULAR, MILD STEEL 5

Triangular top, made of Mild Steel wire. Lower end of legs covered with plastic cap to avoid scratching the work surface. Size available is 125 × 200mm (length of side × height).

2073120 Stand, Tripod, Triangular, Mild Steel



STAND, TRIPOD, TRIANGULAR, ZINC PLATED 5

Triangular top of thick sheet steel and mild steel legs. Zinc plated. Lower end of legs are bent outwards for stability and covered with plastic cap to avoid scratching the work-surface. Size available is 125 × 200mm (length of side × height).

2073160 Stand, Tripod, Triangular, Zinc Plated

STAND, TRIPOD, ROUND TOP, CI 6

Round annular top of cast iron top and mild steel legs. Finished in hammer tone / black colour. Lower end of legs are bent outwards for stability and covered with plastic cap to avoid scratching the work-surface. Sizes (height × diameter) available are

2073200/1 200 × 125mm
2073200/2 200 × 150mm



RETORT RING, WITH SHEET METAL BOSS HEAD

Retort Ring on rod similar to Cat No. 2073320, but with die-pressed, sheet metal boss-head mounted at the other end of rod. Provided with plated thumb metal screw for securely clamping the boss-head to retort stand rod. Sizes (Inside diameter) of the ring available are

2073440/1	55mm
2073440/2	75mm



RETORT RING, WITH DIE CAST BOSS HEAD

Thicker metal ring with rod to support heavier objects, mounted on the die-cast boss head. Boss-head provided with plated thumb metal screw having moulded plastic head for securely clamping the boss-head to retort stand rod. All metal parts zinc plated. Sizes (Inside diameter) of the ring available are

2073480/1	55mm	2073480/2	75mm
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RETORT RING, OPEN TYPE

Mild steel retort ring similar to cat No 2073320, but open type ring not closed. Complete zinc plated. Sizes (ID of ring) available are

2073520/1	55mm	2073520/2	75mm
2073520/3	100mm		

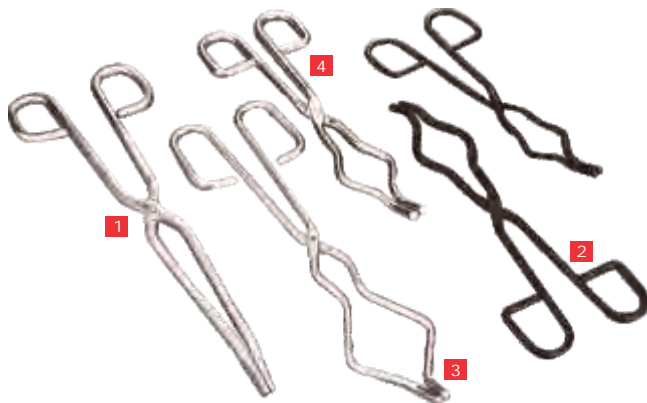


CRUCIBLE TONGS, MILD STEEL

Mild steel wire, rolled flat at joint, jaws corrugated inside. Sizes (length) available are

- 1 Chrome Plated, Length 150mm
- 2 Chrome Plated, Length 200mm
- 3 Painted, Length 150mm
- 4 Painted, Length 200mm

2073560	Straight	1	2073600	With Bow	2
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CRUCIBLE TONGS

Metal wire, rolled flat at joint, jaws corrugated inside. Sizes (length) available are

- | | | | |
|---|--------------|---|--------------|
| 1 | Length 150mm | 2 | Length 200mm |
|---|--------------|---|--------------|

2073640	Stainless Steel, Straight
2073680	Stainless Steel, with Bow
2073720	Brass, Straight
2073760	Brass, with Bow



TONG, MERCURY

Nickel-plated steel, for lifting globules of mercury. Length about 20cm.

2073800	Tong, Mercury	5
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TONG, FLASK, SAFETY

Stainless steel, with cork lined rectangular angled jaws providing extremely firm grip to flasks of any shape from 100-2000mL capacity. Overall length of tong 30cm approx.

2073960	Tong, Flask, Safety	6
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Student gas voltameter

For students' experiments. Embedded platinum electrodes with terminal bushes for 4 mm plugs. The gas is collected in the two miniature test tubes. (included) Made of acid-proof plastic.

4530.00 Student gas voltameter

Electrolysis container lid

This item is used along with the electrolysis container item no. 4530.00 as a hydrogen supply for fuel cell no. 4528.50.

The lid is provided with two plastic tubes which are placed above the platinum electrodes of the electrolysis container so that hydrogen and oxygen can be supplied to the fuel cell.

The lid is provided with a silicone O-ring to ensure a stable and tight connection between the lid and the container.

Supplied with 60 cm long silicone tubing.

4530.05 Electrolysis container lid



Voltameter

For the demonstration of the gas quantity developed through electrolysis. The apparatus consists of a clear plastic jar with two platinum electrodes with 4 mm terminals. Supplied with 2 test tubes to collect the generated gas. Supplied with a movable mm scale to measure the height of the gas volume. Height 240 mm.

4530.10 Voltameter





GAS VOLTAMETER 1

Useful for electrolysis of small quantities, where gaseous evolutions accompany the process. Comprises a clear acrylic vessel mounted on an annular plastic ring and has a pair of platinum electrodes embedded at the bottom, which are connected to 4mm shielded sockets on the annular plastic ring. The gases evolved are collected in two miniature test tubes, included along with. The apparatus is fairly resistant to chemicals apart from organic solvents such as alcohols.

2090120 Gas Voltameter

COPPER VOLTAMETER 2

For experiments in electrochemistry. Consists of a plastic container with an insulated bakelite top lid having 3 rectangular copper electrodes mounted underneath. The middle copper electrode is removable and serves as cathode, while the other two copper electrodes serve as anode. The electrodes connected to terminals present on top of the bakelite lid for electrical connection.

2090160 Copper Voltameter

COPPER VOLTAMETER

A transparent acrylic vessel placed on a stand with circular base. A rubber stopper fixed in the centre of vessel with two copper electrodes internally connected with two colour-coded sockets fitted on the circular base. Copper voltameter is generally used in electrochemistry experiments with cupric sulfate. On applying a potential difference between two electrodes, the copper ions are deposited from anode to the cathode to verify the Faraday's Law Electrolysis. Iron, S.S, carbon electrodes fitted in rubber bung are also provided with it.



2090170 Copper Voltameter



HOFFMANN'S VOLTAMETER

Ideal for studying the electrolysis in which gaseous components are formed or gases are liberated at the electrodes. Demonstrates the composition of water by volume, and useful in determination of the electro-chemical equivalent of hydrogen. The apparatus consists of 'H' shaped glass tube having two connected eudiometers at its ends, graduated 50×0.2mL. A central bulb shaped reservoir is connected to the tube joining the two eudiometers. The eudiometer tubes provided with stop cock at the top and are open at the bottom to take suitable electrodes mounted in rubber bung. Complete made of borosilicate glass.

2090200/1 Hoffmann's Voltameter, with glass stop-cocks

2090200/2 Hoffmann's Voltameter, with stop-cocks made of PTFE key

ELECTRODES, SILVER FOIL

For use as electrode in electrochemistry. Foil thickness about 0.06mm, length 50mm and width 30mm. Pack of ten foils.

2090280 Electrodes, Silver Foil

ELECTRODES, CARBON

Comprises carbon electrodes mounted in holed rubber stopper. Can be used in beaker or boiling tube or with Cat No. 2090040. Supplied in pair. Approximate dimensions: 200×5mm (length × diameter)

2090320 Electrodes, Carbon

GAS TUBE, GRADUATED

Made of neutral glass, sealed at one end for collection and measurement of gases, capacity 50×0.2mL

2090400 Gas Tube, Graduated



ACCESSORIES AND SPARES FOR HOFFMANN'S VOLTAMETER

2090240/1 Stand for Hoffmann's Voltmeter: Stable base with vertical metal rod and clamping arrangement to securely mount the Hoffmann's voltameter, by supporting the cross-limb and all the three vertical arms.

2090240/2 Carbon Electrodes, Simple: Carbon electrodes mounted in rubber bung with connecting wires with protective test tube housing and simple plastic connector. Useful for electrolysis of ammonia solutions or hydrochloric acid or any other chloride containing solution. Supplied in pair. **1**

2090240/3 Carbon Electrodes, Superior: Similar to Cat No. 2090240/2, but superior quality carbon electrode mounted in extra soft rubber bung with brass connecting terminal. Supplied in pair. **2**

2090240/4 Platinum Electrodes, Simple: Highly inert platinum electrodes fused in glass tube and mounted in rubber bung with connecting wires and protective test tube housing. Useful for electrolysis of acidified water. Supplied in pair. **3**

2090240/5 Platinum Electrodes, Superior: Similar to Cat No. 2090240/4, but bigger platinum electrode mounted in extra soft rubber bung with brass connecting terminal. Supplied in pair. **4**

SALT BRIDGE

For use in experiments involving the measurement of cell EMF under conditions of forward, zero, and reverse current flow. The bridge comprises an inverted 'U' tube with its ends closed by sintered discs. This apparatus provides a more effective method of making reversible cells than the wet filter paper or agar gel methods. Arm diameter 13mm, width 8cm and overall height 10cm

2090440 Salt Bridge

'U' TUBE

For the visual observation of the migration of coloured ions. Comprises central loading tube with funnel attached to a 'U' tube and two carbon electrodes mounted in holed rubber bungs closing the mouth of the U-tube. approximate sizes - 19.5cm height and 6.5cm width.

2090480 'U' Tube



Use of Bunsen Burner

- Turn the nozzle on the bottom of the burner.
- Lit the match stick in one hand and slowly turn on the gas at the spigot.
- Hold the match stick near the burner so that the air being pushed out by the propane does not blow it out.
- Lighting the burner using this method avoids explosion.

New Products from Lionet Science

Quantity	Colour	Element	No Holes	Type
20	White	Hydrogen	1-hole	s
12	Black	Carbon	4-holes	sp ³ tetrahedral 109.5°
7	Red	Oxygen	2-holes	sp ³ angular 105°
6	Green	Halogen	1-hole	s
2	Blue	Nitrogen	3-holes	sp ³ pyramidal 107°
1	Yellow	Sulphur	2-holes	sp ³ angular 105°
Links				Total length
26	Grey	Medium(standard)		32 mm
10	Grey	Long flexible		44 mm
26	White	Short white		12 mm
1	Cream	Link remover tool		

Qty	Element	Colour	Holes/type	Dia mm
12	Carbon C	Black	4 tetrahedral.	23
20	Hydrogen H	White	1	17
6	Oxygen O	Red	2 angular(bent)	23
2	Nitrogen N	Blue	4 tetrahedral	23
2	Nitrogen N	Blue	3 pyramidal	23
1	Sulphur S	Yellow	4 tetrahedral	23
1	Sulphur S	Yellow	6 octahedral	23
4	Halogen Cl	Green	1	17
1	Phosphorus P	Purple	4 tetrahedral	23
1	Metal Na	Grey	1	17
26	Link	Grey	medium	19/31*
12	Link	Grey	long flexible	32/43*
26	Link	White	short	2/10*
1	tool			*total



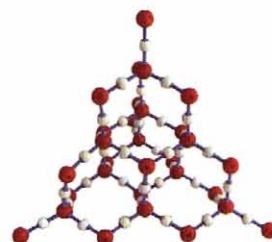
XCM-001-NaCl



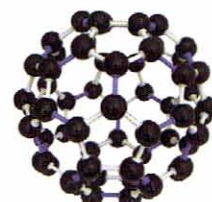
XCM-003-Diamond



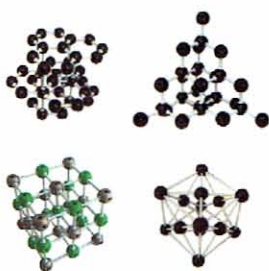
XCM-004-Graphite



XCM-005-Silicon
-Dioxide-SiO₂



XCM-006-fullerene
-Carbon-60-C60



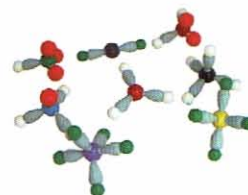
XCM-028-Crystal-Model



XMM-301
-Atomic-Orbitals



XMM-302
-Molecular-Orbital



XMM-303-VSEPR
-Theory-VSEPR



XMM-303-2-VSEPR
-Theory-VSEPR



Introductory Organic
Molecular Model
Set Cat.
No. 2021001



Organic Student
Set Cat.
No. 2021008



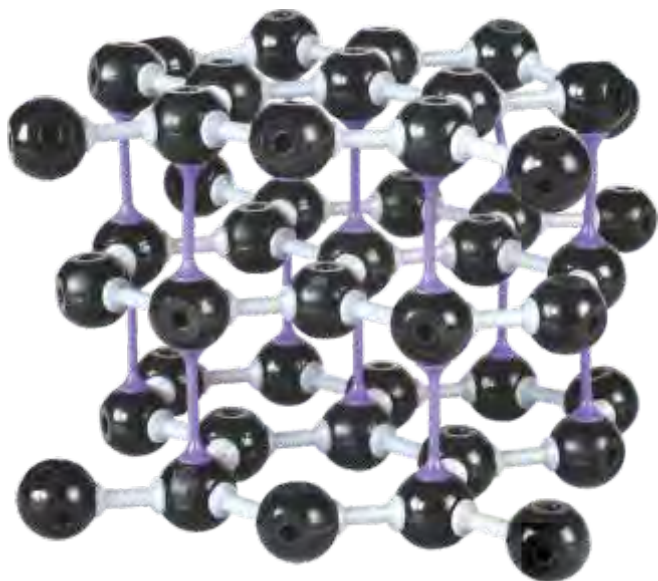
Molecular Model Student Kit
for Organic &
Inorganic Chemistry - Cat.
No. 2021009



XMM-004-J3113
-Space-Filling
-Molecular-
Model-Set



XMM-006
-Introductory
-Organic-Molecular
-Model-Set



GRAPHITE MODEL KIT

Carbon (black) Trigonal Bipyramid	(45)
Medium Links (gray)	51
Long Links (Purple)	16



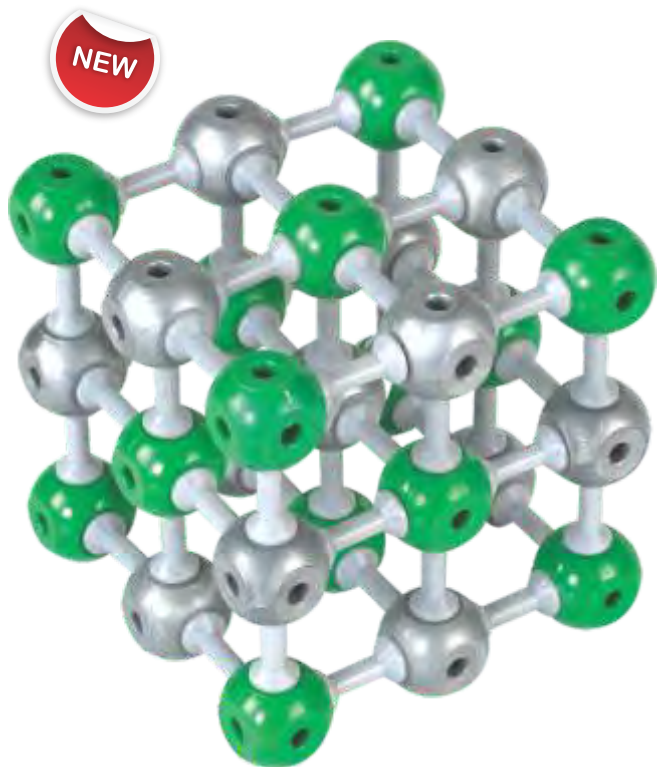
2100370/1 Graphite Model Kit



DIAMOND MODEL SET

Carbon (black) 4 hole tetrahedral	(30)
Medium Links (Grey)	(40)

2100370/3 Diamond Model Set



SODIUM CHLORIDE MODEL SET

Gray octahedral	(6 hole) (13)
Green octahedral	(6 hole) (14)
Medium Links (gray)	(54)

2100370/2 Sodium Chloride Model Set



ICE MODEL SET

Oxygen spheres	(26)
Hydrogen spheres	(52)
Short white links	(52)
Purple medium links	(40)

2100370/4 Ice Model Set



MOLECULAR MODELS SET, TEACHER, ORGANIC

Designed to make models of most organic compounds. Packed in compartmented moulded plastic box. The set comprises

Spheres:	Carbon - 24	Oxygen - 12
	Nitrogen - 4	Sulphur - 2
	Halogen - 12	Metal - 3
	Hydrogen - 40	
Links:	Short White - 60	Medium Grey - 55
	Long Grey - 25	

With instruction leaflet.

2100400 Molecular Models Set, Teacher, Organic

MOLECULAR MODELS SET, TEACHER, ORGANIC AND INORGANIC

A versatile set suitable for higher grades and advanced level courses covering a comprehensive range of organic, inorganic molecules, from simple ones to complex ones. Packed in compartmented moulded plastic box. The set consists of

Spheres:	Carbon - 6	Oxygen - 22
	Nitrogen - 10	Sulphur - 12
	Halogen - 8	Metal - 14
	Phosphorus - 7	Hydrogen - 14
Links:	Mauve - 50	Medium Grey - 50
	Long Grey - 36	

With instruction leaflet.

2100440 Molecular Models Set, Teacher, Organic and Inorganic

MOLECULAR MODELS SET, TEACHER, BIOCHEMISTRY

A semi-space filling set for making a wide range of biochemistry molecular models. Packed in two compartmented moulded plastic boxes. Consists of

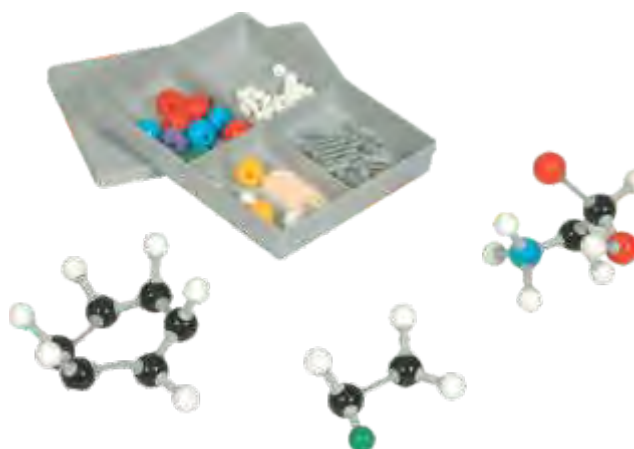
Spheres:	Carbon - 66	Oxygen - 40
	Nitrogen - 34	Sulphur - 2
	Metal - 2	Phosphorus - 6
	Hydrogen - 105	
Links:	Short White - 100	Non- visible - 60

With instruction leaflet.

2100480 Molecular Models Set, Teacher, Biochemistry 1



1



MOLECULAR MODELS SET, STUDENT, ORGANIC

The set consists of

Spheres:	Carbon - 12	Oxygen - 6
	Nitrogen - 2	Halogen - 4
	Sulphur - 2	Metal - 1
	Phosphorus - 1	Hydrogen - 20
	Pyramidal Nitrogen - 2	
Links:	Short White - 26	Medium Grey - 26
	Long Grey - 12	

With instruction leaflet.

2100520 Molecular Models Set, Student, Organic



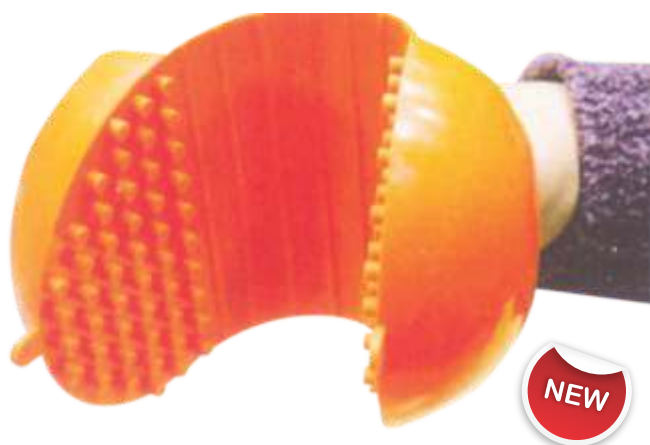
GLOVES

For the protection of hands while handling noxious material, inside laboratory as well as in outside field work.

2110120/1 Polythene, Disposable: made of thin polythene sheet, for single use. **1**

2110120/2 Rubber: General purpose, medium weight gloves, provided excellent electrical insulation. **2**

2110120/3 Latex: Sterilized. Lightly textured fingers and palm surface for a good grip. With cuff-ends. **3**



HAND PROTECTORS

It will be dangerous to handle a heated up material i.e. flask, beaker etc. but with the help of this hand protector one can easily handle such type of material. Studded surface is used for proper gripping of materials with a temperature up to 250° C.

2110125 Hand Protectors

APRONS, DISPOSABLE

Lightweight, made of polythene. Intended for single use. Blood, water and chemical resistant; sterilized. With halter neck band and waist ties. For use by both men and women. Individually packed.



2110160 Aprons, Disposable

FACE MASK, DISPOSABLE

For single use. Bacteria filtering efficiency; permeable to air. Cool and comfortable, with metal nose clip. Sterilized.

2110200 Face Mask, Disposable



SAFETY GOGGLES

For protecting eyes from harmful substances. Completely cover eyes from all sides.

2110240/1 Single piece clear white plastic, can be used over normal spectacles. With adjustable elastic band.

2110240/2 Similar to Cat No. 2110240/1, but made of clear plastic tinted in slightly darker shade.

2110240/3 Spectacle shaped, Single piece clear plastic front bent in L-shape to prevent eyes from the sides, in unbreakable plastic frame. Features fog-guard, and slip resistant nosepiece with a wraparound design. Reinforced hinges add support and durability.

2110240/4 Spectacle shaped black frame with clear plastic lens for each eye and rotatable guard to block sides of the eyes from nose side or from opposite side. Ideal for protecting the eyes from flying debris.



SAFETY GOGGLES

Unbreakable, lightweight, moulded clear plastic front, trendy shaped glasses, modern design available in different shapes with integrated side shields. These goggles provides panoramic vision. Contoured, slip-resistant nose-pad for convenient wearing.

2110280/1 With black arms, length of the arms adjustable

2110280/2 With Clear transparent arms

FIRE BLANKET

Provides excellent fire protection. A woven fiber-glass fire blanket with a PVC interlayer. Suitable for contained fires and personal clothing fires. Ideal for small fires that can occur in lab. Blanket contained in a suitable casing for mounting on the wall and can be taken out very quickly in an emergency by pulling down the release tapes. Instruction clearly printed on the casing.

2110360 Fire Blanket



For Rugged, Accurate Results

Extech field-tested lab instruments are fast-responding tools designed to deliver accurate and repeatable readings with waterproof and datalogging models available.



ACCESSORIES

PH105	Spare pH ExStik® Electrode Module
PH115	Spare Refillable pH ExStik® Electrode Module
PH113	Reference Refill Solution Kit for PH110
PH305	Spare pH Electrode for PH300, EC600, DO700
6015WC	Waterproof pH Electrode with cable for Palm pH
6012WS	Waterproof Stick Type pH Electrode for Palm pH
PH4-P	pH 4 Buffer Solution (2 bottles - 1 pint each)
PH7-P	pH 7 Buffer Solution (2 bottles - 1 pint each)
PH10-P	pH 10 Buffer Solution (2 bottles - 1 pint each)
PH103	Tripak Buffer pouches (see photo above)
850185	RTD Stainless Steel Temp. Probe for the Oyster
850188	Temperature probe, stainless steel for 407228
153117	117V AC Adaptor
UA100-240	100-240V AC Adaptor with 3 plugs (US, EU, UK)
CA895	Vinyl Pouch Carrying Case for PH100



PH110

PH100/PH110 Waterproof ExStik® pH Meters

Choose flat surface gel-filled or refillable pH electrode

- “RENEW” feature alerts user when electrode needs replacement
- “CAL” indicator alerts user to recalibrate
- Analog bargraph originates at neutral point (pH 7.00) to conveniently view trends in acidity or alkalinity
- 1, 2 or 3 point buffer calibration; ATC
- Records 15 labeled readings
- Waterproof housing (meets IP57)
- Complete with protective sensor cap, sample cup with cap, four 3V button batteries, and 48” (1.2m) neckstrap; requires pH buffers sold separately
- **Model PH100** meter includes gel filled pH flat surface electrode
- **Model PH110** meter includes refillable flat surface pH electrode; PH113 KCl reference kit sold separately



PH220-C

PH220 Waterproof Palm pH/ORP Meter

Large LCD display in rugged housing with choice of stick or cabled pH Electrode

- Displays pH or mV and Temperature simultaneously
- Automatic Buffer recognition
- Automatic Temperature Compensation via Pt-100 sensor built into electrode
- Low Battery indicator and Auto Power off
- Waterproof housing (meets IP57)
- Rugged design for handheld or wall mount (magnetic back)
- Complete with waterproof meter, pH electrode, protective holster, pH 4 & 7 buffers (1 pouch ea.), and 9V battery
- **Model PH220-C** Kit includes ATC pH polycarbonate electrode (12mm diameter) with 39” (1m) cable
- **Model PH220-S** Kit includes ATC pH stick type polycarbonate electrode (12mm diameter) for direct connection to meter

SPECIFICATIONS

	■ PH100 ▲ PH110	■ PH220-C ▲ PH220-S
Type	■ Gel Filled ▲ Refillable	■ Cabled pH Electrode ▲ Stick pH Electrode
pH	0.00 to 14.00pH	0.00 to 14.00pH
mV	—	-999 to 999mV
Temperature	23° to 194°F (-5 to 90°C)	32° to 212°F (0 to 99.9°C)
Max Resolution	0.01pH, 0.1°	0.01pH, 1mV, 0.1°
Basic Accuracy	±0.01pH, ±1.8°F/1°C	±0.01pH, ±2mV, ±0.8°F/0.5°C
Memory	15 readings	—
PC Interface	—	—
Dimensions/ Weight	1.4x6.8x1.6" (35.6x172.7x40.6mm)/3.8oz (110g)	4.4x3.1x1.5" (111x79x39mm)/ 9.2 oz (260g)
Warranty	1yr (meter)/6mo conditional warranty (electrode)	1yr (meter)/6mo conditional warranty (electrode)

NOTE: It is recommended that you calibrate your conductivity meter to conductivity standards before use.

CE All models are CE approved.

CALIBRATION TRACEABLE TO **NIST**

Conductivity/TDS Meters

Waterproof meters with one high accuracy multi-ranging sensor that measures multiple parameters
Conductivity, TDS and Temperature

Common Features:

- Units of measure include $\mu\text{S}/\text{cm}$, mS/cm , ppm, ppt, °F, and °C
- Large 3-1/2 digit (2000 count) LCD display
- Data Hold and low battery indication
- Auto Power off with disable
- Adjustable Automatic Temperature Compensation
- Waterproof design to withstand wet environment – meets IP65 standard
- Includes meter, protective sensor cap, and four LR44 button batteries. *Order Conductivity standards separately (required for calibration)*

Model EC100:

- Measures Conductivity and Temperature with simultaneous readout display
- Two ranges for Conductivity with one point calibration per range

Model EC150:

- Measures Conductivity, TDS and Temperature
- Adjustable Conductivity to TDS ratio factor from 0.4 to 1.0 – conveniently calculates the TDS value
- Simultaneous display of Conductivity or TDS, plus Temperature
- Two ranges for Conductivity and TDS with one point calibration per range



Specifications	Ranges	Max. Resolution	Basic Accuracy
Conductivity	0 to 1999 $\mu\text{S}/\text{cm}$ 00 to 19.99 mS/cm	1 $\mu\text{S}/\text{cm}$ 0.01 mS/cm	$\pm 1\%$ FS
TDS (EC150 only)	0 to 1999ppm 0 to 19.99ppt	1ppm 0.01ppt	$\pm 1\%$ FS
Temperature	32° to 122°F (0 to 50°C)	0.1°F/°C	$\pm 0.9^\circ\text{F}/1^\circ\text{C}$
Power	Four LR44 button batteries		
Dimensions	6.5 x 1.4 x 1.3" (165 x 35 x 32mm)		
Weight	3.8oz (110g)		

Ordering Information:

EC100Conductivity Meter
 EC150Conductivity/TDS Meter
 EX006Weighted base with 5 solution cups
 EX007Spare sample solution cups (24pk)
 EC-1413-P.....1413 μS Conductivity Standard (2 bottles - 1 pint each)
 EC-12880-P....12880 μS Conductivity Standard (2 bottles - 1 pint each)
 CA895Small vinyl carrying case with belt loop





CH12395 - Magnetic Stirrer With Hot Plate

For simultaneous heating and stirring of solutions. A cast stainless steel hot plate is mounted above a variable speed magnetic stirrer. An Energy regulator for the hot plate, on/ off switch and continuous speed control for the stirrer motor mounted on the front panel. Supplied completed with Teflon coated stirrer bar of size 9 x 25 mm and 9 x 35 mm. Maximum Temperature Range 400°C Heat Output 400 W, Capable of stirring up to 2 liters.



CH12393 - Magnetic Stirrer

With continuously variable stirring speed, ON/ OFF switch with indicator lamp and continuous speed control mounted on front panel, Complete with 2 No. Teflon coated stirrer bar, of size 9 x 25 mm & 9 x 35 mm. Speed 50-1500 rpm. Capable of stirring up to 2 liters.

CH1920-001

HOT PLATE - 'Simmerstat'
with alloy top plate, 200x180mm.

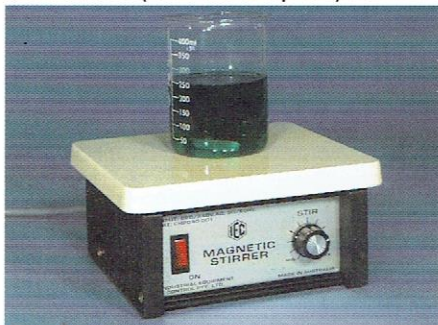
General purpose 'Simmerstat' controlled laboratory Hot Plate heats to about 400°C at maximum setting. The special high temperature alloy plate ensures even heating over the whole surface. End panels are polypropylene for high chemical resistance.



CH2080-001

MAGNETIC STIRRER

powder coated alloy top plate, 200x180mm (with PTFE option)

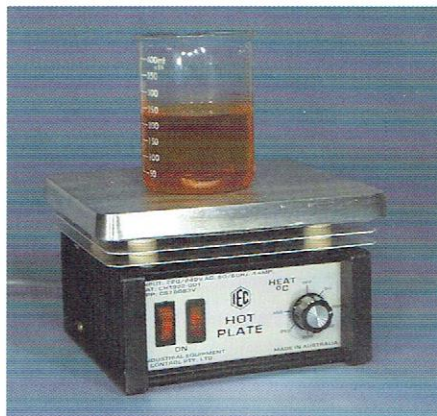


Strong, balanced rotating magnet with electronic speed control approx. 150 to 1500 RPM.

CH1922-001

HOT PLATE - Thermostat

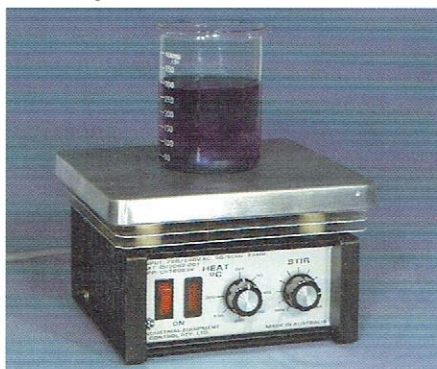
Temperature control 50-320°C with alloy top plate, 200x180mm.



CH2092-001

MAGNETIC STIRRER / HOT PLATE

Thermostat control 50-320°C with magnetic stirrer 150-1500 RPM



CH2090-001

MAGNETIC STIRRER / HOT PLATE

'Simmerstat' control, with magnetic stirrer 50-1500 RPM



Reliable, low cost, general purpose laboratory magnetic stirrer & hot plate combination unit. The alloy top plate ensures even heating while baffles and insulation isolate the heat from the main housing. PTFE coating is optional. End panels are polypropylene for high chemical resistance.

Optional control: A 'Simmerstat' controls heat on a 1-10 scale to approx. 400°C.

A 'Thermostat' controls the plate temperature in degrees from 50 to 320°C.

Stirring: The quiet magnetic stirrer has a strong, balanced rotating magnet with electronic power controller for speeds from approx. 150 to 1500 RPM.

CH3792-001

SPECTROMETER & COLORIMETER
FLAME & ATOMIC ABSORPTION

This instrument was first developed by Monash University Gippsland, Australia. It permits the student to perform real Flame and Atomic Absorption Spectrometry in the classroom. A compact system of selectable calibrated colour filters and light sensor with computer interface and signal amplification makes this instrument self contained. For 'AA' work, a suitable Sodium light source is CH3792-020.

A student bench meter is provided so that light intensity measurements can be taken and graphs plotted manually.

Although some teachers prefer the student to work without a computer, a PC is useful for graphing, logging and saving data and is faster than plotting graphs manually. The instruction manual is very comprehensive and provides explanation and training on Colorimetry and 'Flame' or 'AA' Spectrometry. A **Gas Chromatograph** is now under development using the Spectrometer as the interface.



Kit includes Burner for LP or natural gas, nebulizer with air controller, regulated light source, set of cuvettes, meter scaled in % transmission, 10x calibrated filters selected by knob, interface device, set of cables, student graphing software for a PC and full instruction manual.

CH3860-001

ELECTRIC STILL

All metal construction, 2 litres/hour
220/240V.AC 50/60Hz. 1500W

A unique design, 150x305mm dxh, with integral condenser. Easy to dismantle for cleaning and very compact and easy to use. Mains water inlet is controlled by needle valve.

The Water Still is complete with convenient carry handle and a self levelling device with overflow pipe for draining into a sink. The heating element is protected from low water level burn out by an overheat device with a press button reset. A red light monitors 'power on'.



CH3792-020

SODIUM LIGHT SOURCE

A Sodium light source is required for the IEC Spectrometer to perform simple 'AA' experiments. This low cost light source provides dual levels of brightness. It is not 100% pure Sodium gas but is satisfactory for the various basic 'AA' Spectrometer experiments.

220/240V.AC.

50/60Hz.



Microprocessor
Visible Spectrophotometer LI-722



CHARACTERISTICS

- The monochromator with a holographic flashing grating is used. It has the advantage of high wavelength precision, good monochromaticity and low stray light.
- A sample compartment for 0.5cm -10cm cells,
- Computer control system, precise automatic T/A changeover,
- Automatic zero and full scale adjustment.
- Direct concentration read -out and concentration factor setting function.
- Equipped with RS232 port. Printer can be connected and data can be sent to PC by special software

SPECIFICATIONS

Wavelength Range	: 325-1000 nm
Wavelength Accuracy	: ≤ 2 nm
Wavelength Repeatability	: ≤ 1 nm
Transmittance Accuracy	: $\pm 0.5\%$
Transmittance Repeatability	: $\leq 0.2\%$
Spectrum Bandwidth	: 5 nm
Stray Light	: $\leq 0.5\%$ (at 360 nm, NaNO_2)
Light Current Drift	: 0.5%/3 min
Dark Current Drift	: 0.2%/ 3 min
Cell Holder	: 10 mm
Dimensions	: 56x48x29 cms
Nett Weight	: 13.5 Kgs
Gross Weight	: 27 Kgs

OPTIONAL ACCESSORIES

- 5/10/20/50mm Glass Cell
- 5/10/20/50mm Quartz Cell
- 50mm Cell holder
- 100 mm Cell holder
- Tungsten-halogen lamp (12V 30W)
- Printer

STANDARD CONFIGURATION

Main Instrument	: 1 unit
Operational Manual	: 1 pc
Glass Cell 10 mm	: 4 pcs
Power Cable	: 1 pc
Fuse (3A)	: 2 pcs

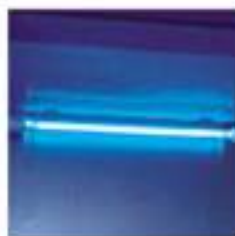
- Design & specification are subject to change without any prior notice.
- OEM option available



Fume Hood



LED Display
Digital LED display: Airflow Level



UV Lamp
Emission of 253.7 nanometers for most efficient decontamination.



**Water&Gas Tap
Water Sink**



Double Layers
1.2mm sheet metal surface,
melamine board inward

ADVANTAGE

1. Double-layer structure: 1.2 mm sheet metal surface, melamine board inward.
2. Microprocessor control system, LED display.
3. Adjustable air speed: 6 levels.
4. Motorized front glass window.
5. UV Lamp for sterilization.
6. Built-in centrifugal blower.

TECHNICAL PARAMETERS

Model	FH1000	FH1200	FH1500	FH1800	
External Size (W*D*H)	1000*750*2320mm	1200*800*2345mm	1500*800*2345mm	1800*800*2345mm	
Internal Size (W*D*H)	820*620*750mm	1020*670*750mm	1320*670*750mm	1620*670*750mm	
Work Surface Height	850mm				
Max Opening	450mm				
Air Velocity	0.3~0.8m/s				
Protection Class	Class I				
Protection Type	IP 20				
Noise	≤60dB				
Exhaust Duct	PVC, Standard length: 4 meters. Φ300mm				
Pipe Strap	1 pc				
Fluorescent Lamp	14W*1	21W*1	28W*1	36W*1	
UV Lamp	Emission of 253.7 nanometers for most efficient decontamination				
Blower	Built-in centrifugal blower; Speed adjustable.				
Front Window	5mm toughened glass; Motorized; Height adjustable.				
Power Supply	110/220V±10%, 60/50Hz				
Consumption	400W	400W	500W	500W	
Material	Exterior	Cold-rolled steel with anti-bacteria powder coating.			
	Interior	High grade melamine board with good acid and alkali resistance function			
	Work table	Solid chemical resistant physiochemical board			
Standard Accessory	UV lamp*2, Fluorescent lamp, Water tap, Gas tap, Water sink, Base cabinet, Pipe strap. Total load of 2 waterproof sockets: 1000W 4 meters PVC exhaust duct				
Optional Accessory	Active carbon filter or HEPA filter				
Gross Weight	230kg	270kg	370kg	420kg	
Package	Main Body	1140*900*1850 mm	1340*940*1890mm	1640*940*1890mm	1940*940*1890mm
	Base Cabinet	1140*900*900mm	1340*940*900mm	1640*940*900mm	1940*940*900mm



Water Still - Lasany LPH4 models are designed for reliable continuous operation incorporating a host of features unmatched by comparable Stills. It is easy to use, safe to operate, thoroughly reliable and above all low cost.



SALIENT FEATURES

- Abundant output. The still provides, 4 litres / hr. of distilled water produced through a power input of 3 KW by a Chromium Plated heater housed in a horizontal Borosilicate Glass Boiler (Pyrex Brand Borosilicate Glass)
- Distilled output is cool ensured by a high efficiency condenser. Temperature of distillate 25°C - 40°C tested for ambient room temperature of 30°C.
- Provision for wall mounting.

DISTILLATE QUALITY

- Ideal for general laboratory use capable of producing pyrogen free water.

TECHNICAL SPECIFICATION

Dimensions	: (W x D x H)
LPH 4	: 50 cm x 15 cm x 45 cm
Weight	: 6 Kg. Approx.
Electrical	: 220 / 240 V, 50 / 60 Hz. Single Phase
Power	: 3 KW Heater
Water Supply	: Min. Flow rate 1 Litre / min.
Min. Pressure	: 3 p.s.i (0.2 x 105 NM ²)
Output	: 4L / hr
Conductivity (using raw water)	: 3.0 - 4.0 µs/cm
Conductivity (using treated water)	: 1.5 - 2.0 µs/cm
pH	: 5.5 - 6.0
Distillate quality	: Pyrogen free

SPARES

Lasany LPH / LB	: Boiler
Lasany LPH / LH	: 3 KW Heater
Lasany LPH / LC	: Condenser

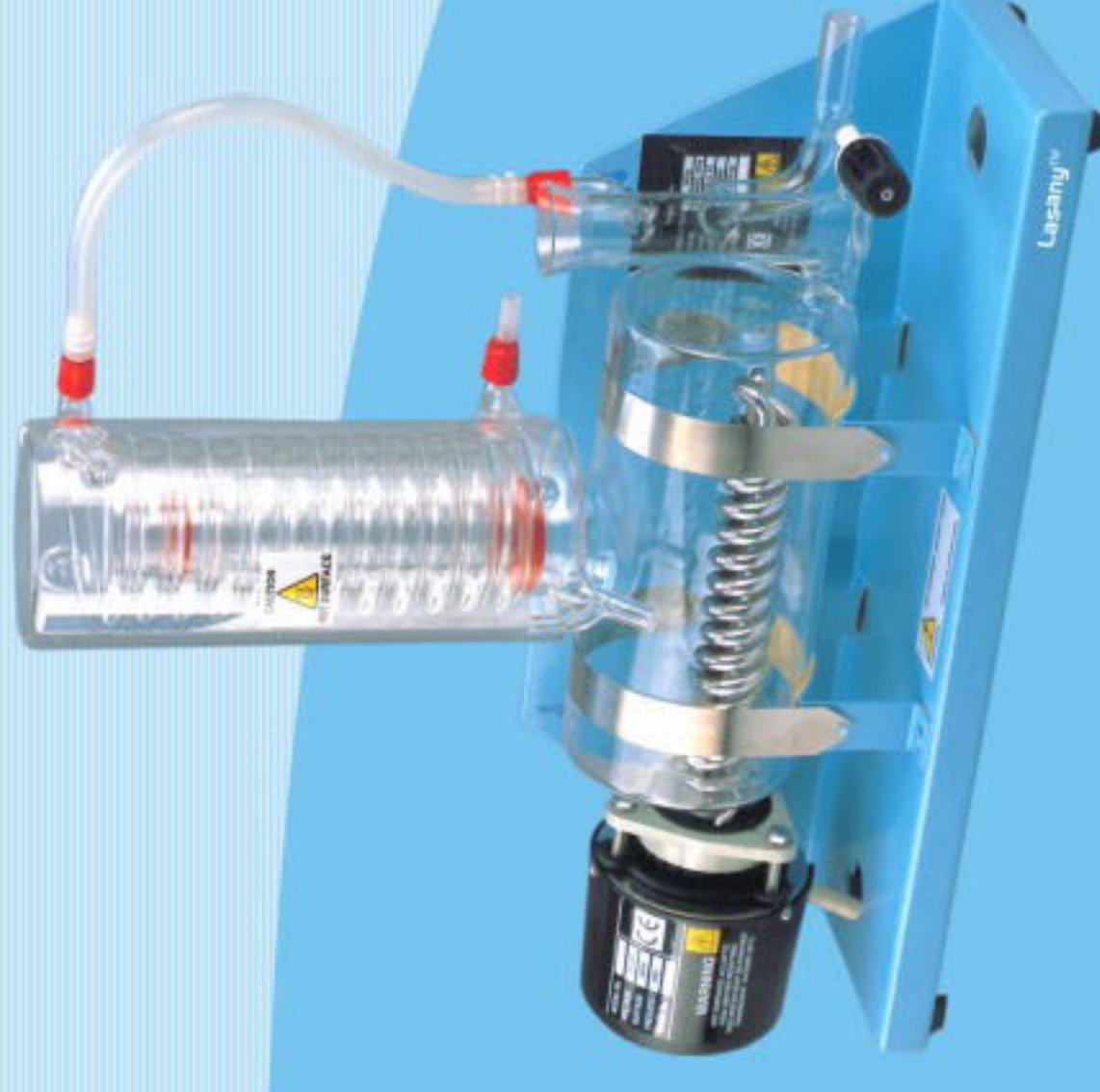
PACKAGING INFO.

7 ply carton with PUF packing	
Dimension	: 50 x 47 x 46 cms
Gross Weight	: 12.00 Kgs. Approx.

CONSTRUCTION

- The stand is powder coated for long rust free operation.
- Heater is a 3 KW Chromium plated heater fitted with a thermostat which shuts off automatically in case of water supply failure.
- The Boiler & condenser are designed for high efficiency and provided with threading for easy plumbing of condenser.
- Boiler is provided with Teflon Screw Cock for inside cleaning of the boiler.
- All plumbing connections to the equipments are made via Screw Thread Connectors.

* Lasany and *Intech* are trademarks of *Lasany International* so these cannot be copied or duplicated in any form or by any mean.
 † Design & aesthetics are subject to change without prior notice.



CHEMICAL PRODUCTS:

We have selected just few chemical products for you. Please call for product not listed hereafter. Our chemical products are not of technical or commercial grade; they are especially prepared for analytical purposes in laboratories, with specific molar masses and concentration... You may specify the required concentration, molarity, molar mass, etc... of the product you choose.

N.B. Chemical Products of technical or commercial grade will not yield to the expected results.

CH1.01.1	Acetic acid, ethanoic acid 250 ml
CH1.02.1	Acetone, propanone, pure 250 ml
CH1.03.1	Agar, gelose 25 g
CH1.03.8	Nutrient Agar, 500g
CH1.04.01	Albumine, 50 g
CH1.05.1	Alcohol, isopropyl, 250 ml
CH1.06.2	Alcohol, isoamylic, 250 ml
CH1.06.3	Alcohol, isoamylic, 500 ml
CH1.07.1	Alcohol, absolute 250 ml
CH1.07.5	Alcohol, 95 % 1000 lt
CH1.08.2	Acetaldehyde, 250 ml
CH1.09.2	Aluminium acetate, 100 g
CH1.09.4	Alum, Aluminium potassium sulfate, 500 g
CH1.10.1	Aluminium chloride, 50 g or 250 ml
CH1.12	Aluminium foil (20X20X0.01 cm)
CH1.13	Aluminium, granular 50 g
CH1.14.2	Aluminium hydroxide 100 g
CH1.15.1	Aluminium nitrate, 50 g or 250 ml
CH1.17.2	Aluminium oxide, 100 g
CH1.18.1	Aluminium powder, 25 g
CH1.19.2	Aluminium sulfate, 100 g or 250 ml
CH1.21.1	Aluminium plate, 25 g
CH1.21.2	Aluminium plate, 50 g
CH1.21.A1	4 - Amino phenol, 25 g
CH1.22.2	Ammonia, 25 %, 1000 ml
CH1.22.3	Ammonia, 1ML 1000 ml
CH1.23.2	Ammonical siver nitrate (tollens) 250 ml
CH1.24.2	Ammonium chloride, 250 g
CH1.25.2	Ammonium dichromate, 250 g
CH1.26.2	Ammonium iron II sulfate, Mohr's salt 250 g
CH1.27.2	Ammonium molybdate, 100 g
CH1.28.2	Ammonium nitrate, 250 g
CH1.29.2	Ammonium oxalate, 250 g
CH1.30.2	Ammonium peroxydisulfate, 250 g or 500 ml
CH1.31.2	Ammonium phosphate, 250 g
CH1.32.2	Ammonium sulfate, 250 g
CH1.32.5	Ammonium Hydroxide 1000ml
CH1.32.6	Ammonium ferric sulfate, 100ml
CH1.33.2	Ammonium thiosyanyte, 250 g
CH1.34.2	Ammonium thiosulfate, 250 g
CH1.34.7	Ammonium Molybdate, 250 g
CH1.35.2	Aniline, 250 g
CH1.36.2	Arsenic acid, 100 g
CH1.36.21	Aspartic acid
CH1.37.1	Barium chloride , 100 g or 250 ml

CH1.38.2	Barium hydroxide, 250 g or 250 ml
CH1.39.2	Barium nitrate, 100 g or 500 ml
CH1.40.7	Barium peroxide, 100 g
CH1.41.2	Benedict solution, 250 ml
CH1.41.3	Benedict solution, 500 ml
CH1.01.01	2 butenediolic acid, 100 g
CH1.42.2	Benzaldehyde, 250 ml
CH1.43.2	Benzol, Benzène, 250 ml
CH1.44.2	Benzoic acid, 250 g
CH1.44.8	Benzyl Alcohol, 250 ml
CH1.44.9	Petroleum Benzen, 1lt
CH1.45.2	Benzoyl chloride, 250 ml
CH1.45.7	Benzene, Benzol pure 500 ml
CH1.48.1	Bromocresol green, 25g
CH1.49.1	Boiling chips, 50 g
CH1.50.2	Boric acid, 250 g
CH1.51.2	Bromine water, 250 ml
CH1.51.5	Bromine, in CCL4 , 100 ml
CH1.52.3	Bromothymol blue, 500 ml
CH1.52.5	Bromothymol blue, 5 g
CH1.53.2A	Buffer solution (PH 4), 500 ml
CH1.53.2B	Buffer solution (PH 7), 500 ml
CH1.53.2C	Buffer solution (PH 10), 500 ml
CH1.53.5	Biuret: 250 ml
CH1.54.1	Butanone: methyl ethyl ketone, 250 ml
CH1.54.9	Butyl éthnoate, 250 ml
CH1.55.0	Chromatography, 3 different colors
CH1.55.1	Cadmium II nitrate, 25 g or 250 ml
CH1.56.4	Chromium III nitrate, 100 g
CH1.57	Calcium, 25 g
CH1.58.2	Calcium acetate, 250 g
CH1.59.1	Calcium carbide, 100 g
CH1.60.2	Calcium carbonate, 250 g
CH1.61.2	Calcium chloride, 250 g
CH1.62.2	Calcium hydroxide, 250 g
CH1.63.2	Calcium nitrate, 500 ml
CH1.64.3	Calcium oxalate, 500 g
CH1.65.1	Calcium oxide, 100 g
CH1.66.3	Carbon powder (active charcoal) 250 g
CH1.67.2	Calcium sulfate, 250 g
CH1.68.2	Calcium sulfide, 250 ml
CH1.69.2	Carbon tetrachloride, 250 ml
CH1.70.2	Carmin, alune 250 ml
CH1.71.1	Carmin, solution 50 ml
CH1.71.2	Carmin, solution 100 ml
CH1.72.1	Carmin, 1 g
CH1.73.2	Carmin acetic, 250 ml
CH1.76.2	Chloroform, 250 ml
CH1.77.2	Chromic acid, 100 g
CH1.78.1	Chromium nitrate, 50 g
CH1.79.2	Citric acid, 250 g
CH1.79.9	Coloring for chromatography, set of 4
CH1.80	Congo red, 10 g
CH1.81.3	Copper acetate, 100 g
CH1.82.2	Copper carbonate, 100 g
CH1.84.2	Copper chloride, 500 ml
CH1.85	Copper foils , 99.9 % , 100 g

CH1.86	Electrode, copper plate
CH1.87.2	Copper nitrate, 250 ml
CH1.88.2	Copper oxide, 100 g
CH1.89.3	Copper powder, 250 g
CH1.90.2	Copper ribbon, 100 g
CH1.91.11	Copper sulfate, 100 g
CH1.91.12	Copper sulfate, hydrated 500 g
CH1.91.77	Copper II sulfate, anhydrous , 250 g
CH1.91.9	Copper II sulfate, 500 ml
CH1.92.2	Copper turnings, 100g
CH1.93	Cresol red, 100 ml
CH1.94.1	Cupric bromide, 100 ml
CH1.95	Cyclo-hexene, 100 ml
CH1.951	Dialysis membrane
CH1.952	Dichloromethane, 250 ml
CH1.96	Diethyl ether, 100 ml
CH1.97	Dinitro phenyl hydrazine D.N.P.H., 100 ml
CH1.98.3	Distilled water, 10 lt
CH2.01.2	E.D.T.A acid , 100 g
CH2.02.2	E.D.T.A. disodium salt , 100 g
CH2.04	Pesin, 25 g
CH2.05.1	Eosine, 10 g
CH2.06.1	Eosine, 100 ml
CH2.05.4	Eosine- Methylene blue 25g
CH2.066	Eugenol, 50 g
CH2.07.1	Tin, 100 g
CH2.08.2	Ethanal, acetaldehyde, 250 ml
CH2.09.2	Ethanamide, Acetamide, 250g
CH2.10.1	Ethanol, 95%, 500 ml
CH2.10.2	Ethanal, acetaldehyde, 1000 ml
CH2.11.3	Ethanol, absolute, 1000 ml
CH2.12.2	Ethanoic acid, 500 ml
CH2.12.9	Ethanoyl chloride, 250 ml
CH2.12.x	Ether, 100 ml
CH2.13.2	Ethyl acetate, 500 ml
CH2.14.5	Ethylene Glycol, 250ml
CH2.14.6	Etallain , 250 ml
CH2.15.2	Fehling A, 500 ml
CH2.16.2	Fehling B, 500 ml
CH2.17	Fluorsceine, 10g
CH2.18.2	Formic acid, Methanoic acid,1000 ml
CH2.19.4	Formol, 1000 ml
CH2.20.2	Fructose, 100 g
CH2.20.8	Fuschine, 25 g
CH2.21	Gelatine powder, 100 g
CH2.22	Gelose (agar), 25g
CH2.23	Giemsas, 100 ml
CH2.24	Glass wool, 25 g
CH2.25.1	Glucose, pure 200 g
CH2.26.3	Glycerine, 500 ml
CH2.27	Glycerol, pure glycerine, 100 ml
CH2.28.2	Glycine, 100 g
CH2.29	Gravel, 500 g
CH2.30	Gum arabic, 100 g
CH2.31.1	Hexane, 250 ml
CH2.32.2	Hexanol, 250 ml
CH2.33.1	Hexene, cyclo 100 ml

CH2.34.3	Hydrochloric acid, (0,5N , 1N, 2N or 32%), 1000 ml
CH2.35.8A5v	Dichloromethane, 1 litre
CH2.36.3	Hydrogen peroxide (10, 20, 30. 40, 50 vol., etc), 1000 ml
CH2.37.1	Immersion oil, 100 ml
CH2.37.91	Indigo carmin, 10 g
CH2.38	Iodine green, 2g
CH2.39	Iodine green, 100 ml
CH2.40.2	Iodine, pure, 100 g
CH2.41.2	Iodine, solution, 250 ml
CH2.42.2	Iodine water, 250 ml
CH2.43.2	Iron II sulfate, 250 g
CH2.44.1	Iron II chloride, 250 ml
CH2.46.2	Iron III chloride, 250 g or 250 ml
CH2.47.2	Iron III nitrate, 250 ml
CH2.48.2	Iron III oxide 100 g
CH2.49.2	Iron III hydroxide, 100 g
CH2.50.1	Iron III sulfate, 250 ml
CH2.50.7	Iron III sulfate, 100 g
CH2.51.2	Iron filings, 250 g
CH2.52.3	Iron powder, 250 g
CH2.53.1	Iron sulfide, 100 g
CH2.54.2	Isopropyl alcohol, 500 ml
CH2.56.1	Lactic acid, 40%, 100 g
CH2.57.2	Lactose, 100 g
CH2.59.2	Lead acetate, neutral, 100 g
CH2.60.2	Knopp's liquid, 1000 ml
CH2.61.2	Lead granular, 99.9%, 250 g
CH2.63.1	Lead nitrate, 100 g
CH2.63.6	Lead nitrate, 500 ml
CH2.65	Lead oxide II, 100 g
CH2.66.2	Lead oxide IV, 250 g
CH2.66.6	Linalol, 50 ml
CH2.67.2	Lime water, 1000 ml
CH2.68	Limonene, 100 ml
CH2.69.03	Lithium, 10 g
CH2.69.4	Litmus, 50g
CH2.69.6	Lithium, 250 ml
CH2.70.2	Litmus solution, 250 ml
CH2.71.2	Magnesium carbonate, 250 g
CH2.72.1	Magnesium chloride, 250 ml
CH2.73.2	Magnesium chloride, 250 g
CH2.74.1	Magnesium hydroxide, 100 g
CH2.75.2	Magnesium nitrate, 500 ml
CH2.76.01	Magnesium powder, 25 g
CH2.76.1	Magnesium oxide, 100 g
GC-374	Magnesium ribbon, 25 g
CH2.77.2	Magnesium turnings , 100 g
CH2.78.2	Magnesium sulfate, 250 g
CH2.78.6	Magnesium sulfate, anhydrous, 500 g
CH4.28.1	Malonic acid, 50 g
CH4.28.2	Malonic acid, 100 g
CH2.79	Maltose, 50 g
CH2.80.1	Manganese chloride, 50 g
CH2.81.2	Manganese dioxide, 250 g
CH2.82.1	Manganese sulfate, 250 ml
CH2.83.2	Manganese sulfate, 100 g
CH2.84.2	Mercury II chloride, 100 g

CH2.84.8	Mercury II chloride, 250 ml
CH2.85.2	Mercury II nitrate, 50 g
CH2.85.6	Mercury II nitrate, 250 ml
CH2.86.1	Mercury, pure 250 g
CH2.87	Mercuric iodide, 250 g
CH2.88.1	Mercury red oxide, pure 50 g
CH2.88.7	Methanoic acid, 1 lt
CH2.89	Methanol, 250 ml
CH2.90.01	Methyl acetate, pure, 1 liter
CH2.90.1	Methyl alcohol, 250 ml
CH2.91.1	Methyl ethyl ketone, 500 ml
CH1.01.09	2 Methy / 2 propanol 250 ml
CH2.91.2	Monochloroacetic acid, 100 g
CH2.92.1	Methyl green solution, 100 ml
CH2.93	Methyl orange, 5 g
CH2.94.2	Methyl orange, 250 ml
CH2.95.2	Methyl red, 250 ml
CH2.96.1	Methylene blue, 5 g
CH2.97.2	Methylene blue, 250 ml
CH2.97.8	Teledyne blue, 100g
CH2.98.4	Monochloroethanoic acid, 100 g
CH2.99.1	Naphtalene, 250 g
CH3.012	Neutral red, 10 g
CH3.02.2	Neutral red, 250 ml
CH3.03.1	Nickel nitrate, 50 g
CH3.03.9	Nickel nitrate, 250 ml
CH3.03.4	Nickel sulfate hydrated, 250 g
CH3.03.6	Nickel sulfate solution, 1 M 1lt
CH3.04.2	Nitric acid (0,5N , 1N, 2N or 65%), 500 ml
CH3.06.01	Orcéine acétique, 100 ml
CH3.06.2	Oxalic acid, 250 g
CH3.07	Palladium chloride, 2 %, 50 ml
CH3.09.1	Paraffin, 250 ml
CH3.09.8	Paratoluene sulfonique, 100 g
CH3.10	Pepsin, 25 g
CH3.11	Perchloric acid, 100 ml
CH3.13.2	Peroxydisulfate de potassium, 100 g
CH3.14.3	Petroleum ether (40-60C), 500 ml
CH3.15.3	Phenolphtalein, 100 g
CH3.15.5	Phenol 100g
CH3.16.2	Phenolphtalein, 250 ml
CH3.18.2	Phosphoric acid 85%, 250 ml
CH3.19	Picric acid, 50g
CH3.20	Picric acid, 250 ml
CH3.21	Potassium , 10 g
CH3.25	Potassium bromide, 100g
CH3.26.2	Potassium carbonate, 250 g
CH3.27.3	Potassium chlorate, 250g
CH3.28.1	Potassium chloride, 250 g
CH3.29.2	Potassium chromate, 100 g
CH3.30.2	Potassium dichromate, 100 g
CH3.30.7	Potassium dichromate, 500 ml
CH3.31.2	Potassium dihydrogen phosphate, 100 g
CH3.32.1	Potassium hydrogen phtalate, or diphtalate, 50 g
CH3.32.121	Potassium Ferricyanide
CH3.32.2	Potassium hydrogen phtalate, or diphtalate, 100 g
CH3.33.1	Potassium hydroxide, 250 g

CH3.34.2	Potassium hydroxide, 1 lt
CH3.35.2	Potassium iodide, 100 g
CH3.35.5	Potassium iodide, 250 ml
CH3.36.2	Potassium iodate, 100 g
CH3.37.2	Potassium nitrate , 250 g
CH3.37.8	Potassium nitrate , 500 ml
CH3.38.2	Potassium oxalate, 250 g
CH3.39.2	Potassium permanganate , 250 g
CH3.39.7	Potassium permanganate , 250 ml
CH3.39.97	Potassium sodium tartrate, 50 g
CH3.40.2	Potassium sulfate, 250g
CH3.41.2	Potassium tartrate, 250g
CH3.42.1	Potassium thiosulfate / Ammonium thiosulfate, 100g
CH3.42.4	Potassium phosphate, 250g
CH3.42.5	Potassium thiocyanate 100g
CH3.43	Propanal or propanal dehydre, 100 ml
CH3.44.2	Propane 1-OL, 250 ml
CH3.45.2	Propane 2-OL, 250 ml
CH3.46.1	Propanol, 250 ml
CH3.47.1	Propanol - Iso (2-Propanol), 500 ml
CH3.48.2	Propanone, 1 lt
CH3.49	Pyrogallic acid, 50g
CH3.50	Pyronin, 100 ml
CH3.51	Pyronin powder, 1g
CH3.52.1	Sacharose, 250g
CH3.53.1	Salicylic acid, 100g
CH3.54.2	Schiff's reagent, 250ML
CH3.55.2	Silica gel for humidity absorbtion, 250 g
CH3.55.3	Silica gel for chromatography, 250 g
CH3.56	Silver acetate, pure 25 g
CH3.57	Silver chloride, pure 25 g
CH3.58.2	Silver nitrate, 4%, 250 ml
CH3.59.1	Silver nitrate, 25 g
CH3.60	Silver nitrate ammonical (Tollen's), 100 ml
CH3.61	Silver shots, 25 g
CH3.61.01	Silver sulfate, 25 g
CH3.62	Silver electrode (10 X 1 X 0.2)
CH3.63	Silver wire, 10 cm
CH3.64.01	Soda lime, 250 g
CH3.65.2	Sodium 100 g
CH3.66.2	Sodium acetate, 250 g
CH3.67.2	Sodium bicarbonate (sodium hydrogen carbonate) 250 g
CH3.68.6	Sodium bisulfite, 250g
CH3.69	Sodium bromide, 100 g
CH3.70.2	Sodium carbonate, 250 g
CH3.70.3	Sodium carbonate, 250 ml
CH3.70.9	Sodium cyanide, 100 g
CH3.71.2	Sodium chloride, 250 g
CH3.72.2	Sodium citrate, 250 g
CH3.73.2	Sodium hydrogen sulfate, 250 g
CH3.74.1	Sodium hydrogen sulfite, 250 ml
CH3.75.2	Sodium hydroxide, 250 g
CH3.76.1	Sodium hydroxide, (0 , 5N , 1N , OR 2N) 500 ml
CH3.78.2	Sodium iodide, 100 g
CH3.78.8	Sodium iodide, 250 ml
CH3.79.2	Sodium iodate, 100 g
CH3.80.2	Sodium nitrate, 250 g

CH3.81.2	Sodium oxalate, 100 g
CH3.82.1	Sodium peroxide, 50 g
CH3.82.6	Sodium peroxodisulfate, 100 g
CH3.83.2	Sodium perborate, 500 g
CH3.84.1	Sodium phosphate, 100 g
CH3.84.2	Sodium phosphate, 250 g
CH3.84.3	Sodium phosphate, 250 ml
CH3.85.1	Sodium potassium tartrate, 100 g
CH3.85.2	Sodium potassium tartrate, 250 g
CH3.86.1	Sodium bisulfite, 100 ml
CH3.86.2	Sodium bisulfite, 250 ml
CH3.88.2	Sodium sulfate, 100 g
CH3.88.3	Sodium sulfate, 250 g
CH3.88.4	Sodium sulfate, 250 ml
CH3.88.5	Sodium sulfate, 500 ML
CH3.88.9	Sodium sulfate decahydrated, 500 g
CH3.89.2	Sodium sulfide, 100 g
CH3.90.1	Sodium sulfide, 100 ml
CH3.90.2	Sodium sulfide, 500 ml 1M
CH3.91.1	Sodium sulfite, 250 g
CH3.91.2	Sodium sulfite, 500 g
CH3.92.20	Sodium thiosulfate, 100 g
CH3.92.21	Sodium thiosulfate, 250 g
CH3.92.24	Sodium thiosulfate, 1000 g
CH3.92.4	Sodium tetraborate, 250 g
CH3.93.1	Sodium thiosulfate, 250 ml
CH3.93.2	Sodium thiosulfate, 500 ml
CH3.94.1	Sudan IV, 5 g
CH3.94.5	Sudan IV, 250 ml
CH3.94.6	Sudan IV, 25g
CH3.95.1	Stannous chloride, 50 g
CH3.95.2	Stannous chloride, 100 g
CH3.96.1	Starch soluble, 50 g
CH3.96.2	Starch soluble, 100 g
CH3.96.3	Starch 250 g
CH3.96.9	Starch solution 250 ml
CH3.97.01	Strontium chloride, 100 g
CH3.97.1	Sucrose, sacharose 100 g
CH3.97.2	Sucrose, sacharose 250 g
CH3.98.1	Sulfochromic acid, 250ml
CH3.98.2	Sulfochromic acid, 500 ml
CH3.98.4	Sulfamic acid, 100 g
CH3.98.5	Sulfamic acid, 30 g
CH3.99.1	Sulfur, 100 g
CH3.99.2	Sulfur, 250 g
CH4.00.1	Sulfur dioxide, 500 ml
CH4.01.1	Sulfuric acid (0 , 5N , 1N or 2N), 250 ml
CH4.01.2	Sulfuric acid (0 , 5N , 1N or 2N), 500 ml
CH4.01.3	Sulfuric acid (0 , 5N , 1N or 2N), 1000 ml
CH4.01.4	Sulfuric acid, (0 , 5N , 1N or 2N), 2.5 Lt
CH4.02.6	Sulfuric acid, 1000 ml, Concentrated
CH4.04.1	Tartric acid, 50 g
CH4.04.2	Tartric acid, 100 g
CH4.05.1	Terpentine, vegetal 250 ml
CH4.05.2	Terpentine, vegetal 500 ml
CH4.06	Thionine powder, 1 g
CH4.07.1	Thionine solution, 100 ml

CH4.07.5	Thiodene 100g
CH4.07.9	Thymolphtaleine, 5g
CH4.08.1	Tin II chloride, 50 g
CH4.08.2	Tin II chloride, 100 g
CH4.09	Tin rods , 25 g
CH4.10	Toluene, 250 ml
CH4.11.1	Tollen's reagent, 100 ml
CH4.11.2	Tollen's reagent, 250 ml
CH4.12.1	Uranyl acetate, 50 g
CH4.13	Urea, 100 g
CH4.14	Vaseline, 200 g
CH4.141	Vaniline, 50 g
CH4.15	Wij's reagent, 100 ml
CH4.16	Wright solution, 100 ml
CH4.17.2	Xylol , 250 ml
CH4.19.1	Zinc chloride, 250 ml
CH4.19.2	Zinc chloride, 500 ml
CH4.19.3	Zinc chloride, 500g
CH4.20.1	Zinc granular, 100 g
CH4.20.2	Zinc granular, 250 g
CH4.20.6	Zinc foil, 25g
CH4.20.6a	Zinc powder, 50 g
CH4.20.7	Zinc powder, 250g
CH4.21.1	Zinc nitrate solution, 250 ml
CH4.22.1	Zinc oxide, 100 g
CH4.23.2	Electrode, Zinc plate 50 g
CH4.24.1	Zinc sulfate, 100 g
CH4.24.2	Zinc sulfate, 250 g
CH4.24.4	Zinc sulfate monohydrated, 1000 g
CH4.24.6	Zinc sulfate, 250 ml
CH4.25	Zinc ribbon, 25 g
CH4.27	Tube, U + Agar
CH4.31.2	Chemical products one year's supply, Intermediate School
CH4.31.3	Chemical products one year's supply, Secondary School

IRB-89DT

Interactive White Board

Intelligent Series



The Spectron IRB-89DT is a technologically advanced product in the Intelligent Series line. The interactive white board features Dual Touch technology that enables two users to write and draw simultaneously. Users can switch seamlessly between writing, drawing and moving objects with a finger, stylus or even a pointer. The board easily connects to a computer through a USB interface or optionally with wireless technology. The IRB-89DT also features anti glare scratch resistant durable surface and equipped with Specktron software it is the ideal tool to increase engagement and collaboration within any educational, corporate or professional teaching or training environment.

KEY FEATURES

- Dual-Touch
- Anti-Glare porcelain enameled steel surface
- Hotkey strip for software tools short cuts
- Intelligent Series Software- Dual writing and educational software that allows full annotation.
- Technology: IR

SPECKTRON

IDX Series

Interactive LED Display



High End Interactive Technology

CLASS ROOMS / TRAINING ROOMS / BOARD ROOMS



Wireless



Finger Touch



Pen Touch



Embedded PC



Tough Screen



Anti Glare Screen

IDX-84

IDX-70

IDX-65

IDX-55

DISPLAY				
Screen Type	TFT LED	TFT LED	TFT LED	TFT LED
Display Area	1860(H)*1047(V)	1538.880 (H) x 865.620 (V)	1428.48 (H) x 803.52 (V)	1209.6 (H) x 680.4 (V)
Resolution	3840*2160	1920 x1080	1920 x1080	1920 x1080
Brightness	400 cd/m ² *	400 cd/m ² *	400 cd/m ² *	400 cd/m ² *
Contrast	4000:1 *	4000:1 *	4000:1 *	4000:1 *
Response Time	4ms*	4ms*	4ms*	4ms*
Number of Color	1.07B (10-bit)*	1.07B (10-bit)*	1.07B (10-bit)*	16.7M (8-bit)*
Refreshing Frequency	100Hz/120Hz*	100Hz/120Hz*	100Hz/120Hz*	100Hz/120Hz*
View Angle	178/178	178/178	178/178	178/178
Service Life	> 80,000 hrs	> 50,000 hrs	> 50,000 hrs	> 50,000 hrs

TOUCH SYSTEM				
Sensing Type	Infrared System-6 Touch	Infrared System-6 Touch	Infrared System-6 Touch	Infrared System-6 Touch
Response Time	<4ms(typ)	<4ms(typ)	<4ms(typ)	<4ms(typ)
Response Area	>Φ5mm	>Φ5mm	>Φ5mm	>Φ5mm
Output Coordinate	32767 X 32767	32767 X 32767	32767 X 32767	32767 X 32767
Communication Mode	Full-speed USB (driver free)	Full-speed USB (driver free)	Full-speed USB (driver free)	Full-speed USB (driver free)
Life Time	"Use Auto Power Control (APC) Technology; Life Time over 800,000 hrs"	"Use Auto Power Control (APC) Technology; Life Time over 800,000 hrs"	"Use Auto Power Control (APC) Technology; Life Time over 800,000 hrs"	"Use Auto Power Control (APC) Technology; Life Time over 800,000 hrs"
Surface Protection	Toughened Glass with Level 7 of Mhos Standard	Toughened Glass with Level 7 of Mhos Standard	Toughened Glass with Level 7 of Mhos Standard	Toughened Glass with Level 7 of Mhos Standard

PC MODULE				
Type	Detachable PC module	Detachable PC module	Detachable PC module	Detachable PC module
Processor	Intel Huron River Sandy Bridge i5	Intel Huron River Sandy Bridge i5	Intel Huron River Sandy Bridge i5	Intel Huron River Sandy Bridge i5
Graphics	Integrated	Integrated	Integrated	Integrated
Sound Card	Integrated High Definition AudioStereo	Integrated High Definition AudioStereo	Integrated High Definition AudioStereo	Integrated High Definition AudioStereo
Networking	Integrated IO/100/1000M Adaption	Integrated IO/100/1000M Adaption	Integrated IO/100/1000M Adaption	Integrated IO/100/1000M Adaption
Memory	4G DDRIII	4G DDRIII	4G DDRIII	4G DDRIII
Hard Drive	500G SATA	500G SATA	500G SATA	500G SATA
WIFI	802.11b/g/n (2.4GHZ)	802.11b/g/n (2.4GHZ)	802.11b/g/n (2.4GHZ)	802.11b/g/n (2.4GHZ)
USB(A)	6	6	6	6
Microphone In	1	1	1	1
Earphone Out	1	1	1	1
Lan Port(RJ45)	1	1	1	1
VGA Out	1	1	1	1

DISPLAY CONNECTORS				
Composite Video Input	1	1	1	1
Composite Video Output	1			
"Component Video (Y/Pb/Pr) Input"	1	1	1	1
S-Video (4pin DIN)	1	1	1	1
VGA Input (15pin D-Sub)	2	2	2	2
PC-Audio Input	2	2	2	2
HDMI Connection	2	2	2	2
Digital Audio Output	1	1	1	1
Audio Output	1	1	1	1
USB(A) In	1	1	1	1
USB(B) Touch In	1	1	1	1
RS232	1	1	1	1
Power Amplify	10W*2	10W*2	10W*2	10W*2

POWER				
Power Requirements	100V-240V AC 50/60HZ	100V-240V AC 50/60HZ	100V-240V AC 50/60HZ	100V-240V AC 50/60HZ
Overall Power Consumption	< 150W(typ)	< 150W(typ)	< 250W(typ)	< 250W(typ)
Standby Power Consumption	< 0.5W	< 0.5W	< 0.5W	< 0.5W

SUPPLIED ACCESSORIES

AC Power Cable/Operating Instructions/Quick Start Guide/Writing Pen/Remote Control/Batteries/VGA Cable/USB Cable/ Application and Driver Disk

AMBIENT CONDITIONS				
Operation Temperature	0 C-40 C	0 C-40 C	0 C-40 C	0 C-40 C
Operation Humidity	10% - 90% RH	10% - 90% RH	10% - 90% RH	10% - 90% RH
Storage Temperature	-20 C-60 C	-20 C-60 C	-20 C-60 C	-20 C-60 C
Storage Humidity	10% - 95% RH	10% - 95% RH	10% - 95% RH	10% - 95% RH
Dimension L*H*W	1978.16*1186.7*85.8 (mm)	1713 X 1035 X 115 (mm)	1591 X 961 X 110 (mm)	1369 X 828 X 104 (mm)
Dimension(package) L*H*W	2168*1458*318 (mm)*	1490 X 1010 X 280(mm)	1730 X 1140 X 250(mm)	1490 X 1010 X 280(mm)
VESA	600*600 (mm)	400 X 400 (mm)	400 X 400 (mm)	400 X 400 (mm)
Net Weight	116kg	71kg	66kg	47kg
Gross Weight	144kg	83kg	75kg	55kg

XL 420 UST

Multimedia Projector

Business & Education



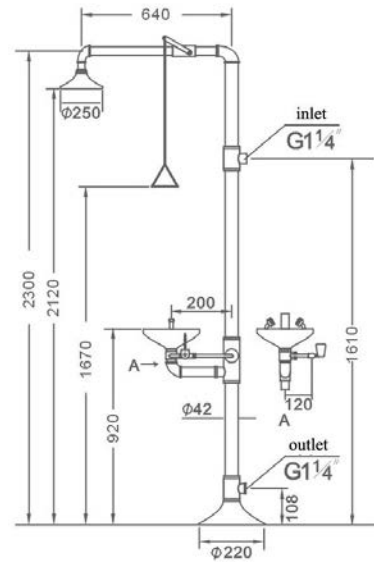
The Specktron XL420 UST is an ultra short throw projector designed with distinctive technology to display wide screen images in small spaces, without glare inhibiting the presenter. It features an impressive brightness of 2700 ANSI lumens and a contrast ratio of 2000:1 for vibrant, crisp imagery. The XL 420 UST is also equipped with a 10W speaker for brilliant sound quality and is ideal for any business or classroom environment.

KEY FEATURES

Technology	LCD
Brightness	2700
Resolution	XGA (1024 x768)
Contrast Ratio	2000:1
Lamp Life	6000 hours (Eco)
Weight	5.5kg

SPECIFICATIONS

Display Technology	LCD
Display Panel Type	LCX111AAJ/ABJ-6/7/8
Display Panel	3x0.63"
Brightness	2,700 ANSI lumens
Native Resolution	XGA (1024 x 768)
Contrast Ratio	2000:1
Lens	F=1.8, f=4.21
Uniformity	75%
Throw Ratio	80"@0.57m
Image Size / Throw Distance	60" to 100"/0.44m~0.7m
Aspect Ratio	4:3 Standard, 16:9 Compatible
Keystone	Manual Keystone : ±5°
Input	HDMI*2,VGA*2, YCbCr, Video (Share one with YCbCr), S-Video, Audio: 3.5 (Mini Jack), RCA*2
Output	VGA*1, Audio out (Mini-Jack)
Control	RJ45/RS232/USB-B
PC Compatibility	VGA, SVGA, XGA, SXGA, WXGA, UXGA, Mac
Video Compatibility	PAL, SECAM, NTSC 4.43, PAL-M, PAL-N, 480i, 480p, 576i, 576p, 720p, 1035i, 1080i
Lens Shift Horizontal	No
Lens Shift Vertical	No
Lamp	215W
Lamp Life	Normal 4000H, Eco 6000H
Remote Control	Yes
Horizontal Frequency	15 ~ 100 kHz
Vertical Frequency	48 ~ 85 Hz
Standby Power	<1W
Power Supply	100V ~240V @ 50~60 HZ
Power Consumption	280W
Operating Temp	5° to 35°
Store Temp	-10° to 60°
Speaker	1x10W
Dimensions	420 x 345 x 110 mm
Weight	5.5 kg.
OSD Languages	English / Arabic / Farsi / French / German / Italian / Spanish / Russian / Chinese / Portuguese / Afrikaans / Korean / Finnish / Dutch / Thai / Vietnamese / Japanese / Turkish / Indonesian
Features	<ul style="list-style-type: none"> • Change Lamp at the Top • Sponge Filter • Build in Test Image • Zoom in/out & Panning • Customized Power on Time • Auto signal Sourcing • Auto Power on/off • Auto Power off when no signal • Auto Power on when signal input in suspend mode
Accessories included	<ul style="list-style-type: none"> • Remote Control • Batteries • CD Manual • Power Adapter • VGA Cable • Power Cord • Lens Cover With String • Carry Case
Optional Accessories	N/A



WJH0758A
SGPW Emergency Shower & Eye Wash

COMBINATION SHOWER & EYE WASH

- Material: all of eye washes and shower sprayer head are ABS, the others are galvanization steel pipeline.
- Coating: the especial coating can resist chemicals
- Sprayer head: the ABS diameter of spray head is 250mm, supply the MAX.outlet water flux 80L/min, (the pressure is 0.6MPa). The ABS diameter of the eye wash bowl is 250mm. Built-in bubbly equipment, softened water spray for eye protection,the outside have the duct cap, removed automatically when eye wash is operated.
- Valve: the valve of the shower is G1” ball valve.
The valve of the eye wash is G1/2” ball valve.
- Rate of flow: along with the pipeline pressure the water flux is changed, within the stated water pressure, the max,outlet flux of eye wash is 9-12L/min.
- Water pressure: the applicable water pressure is 0.2MPa-0.6MPa.
- Source: normal temperature purity water or according with sanitation standard water.

万向抽气罩 (吸顶式/壁式/桌上型)

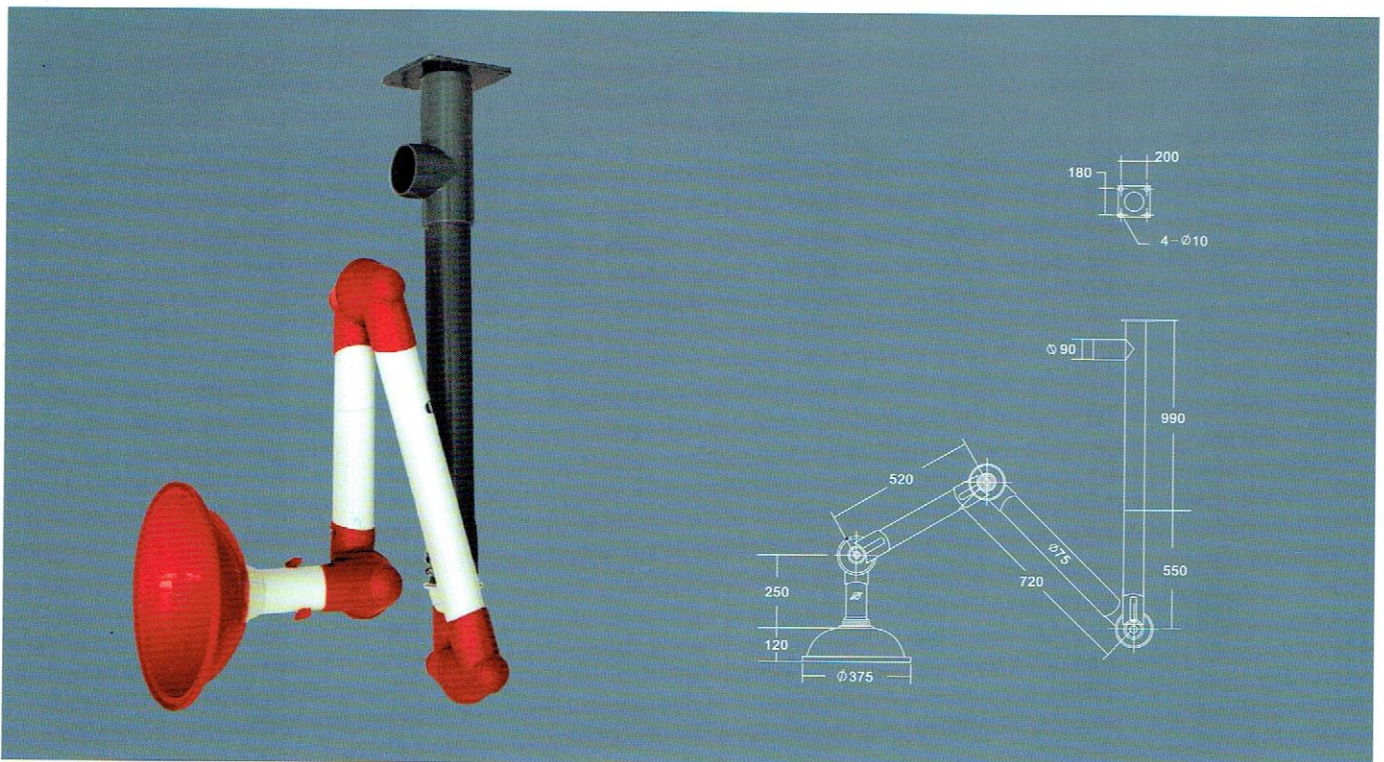
- 关节: 高密度PP/PC 材质, 可360° 旋转调节方向, 易拆卸、重组及清洗
- 关节密封圈: 不易老化之高密度橡胶
- 支撑弹簧/关节连接杆: 304不锈钢
- 关节松紧旋钮: 高密度PP/PC 制成, 内嵌铜质螺母, 与关节连接杆锁合
- 气流调节阀: 手动调节外部阀门旋钮, 控制进入之气流量
- 拱形/杯形集气罩: 直径375mm/200mm, 高密度PP/PC 制成, 红色、灰色和透明三种选择
- 伸缩导管: 直径75mmPVC/PC
- 固定架: 高密度PP/PC 材质 (吸顶式/壁式), PP/PC (桌上型)

说明: PC需为塑胶类中不助燃之材质, 且为塑胶类中耐高温之材质, 符合实验室安全之需求

FUME EXHAUST(CEILING/WALL/BENCH MOUNTED)

- Joint: High grade PP/PC, to be 360° swiveled, dismantled & assembled easily for cleaning
- Joint seal ring: low-friction treated rubber
- Support spring/center bolt: Stainless steel 304
- Adjustable joint knob: High grade PP/PC with a molded-in brass nut locking with center bolt
- Damper: To manually adjust airflow by a knob
- Dome/cup hood: D375mm/200mm, high grade PP/PC, red, grey & transparent available
- Tube: D75mm PVC/PC
- Bracket: High grade PP/PC (ceiling/wall mounted), PP/PC (bench mounted)

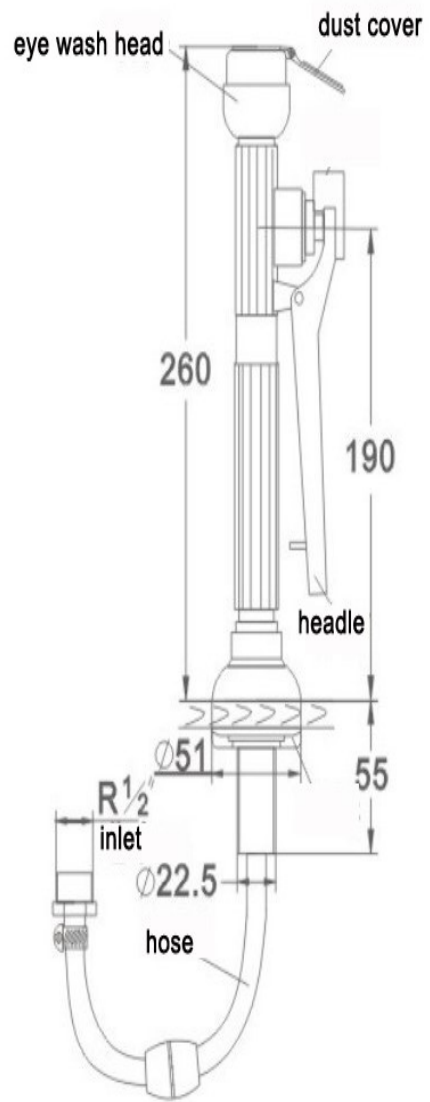
Explanation: To fit laboratory safety required, use non-burnable plastic which endure high temperature.



WJH0604

万向顶式抽气罩 (三节)
Ceiling Fume Exhaust (3 Joint)

BENCH EYE WASH





10 Oct 2007



12 Aug 2007



12 Aug 2007