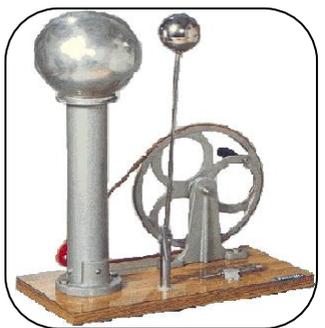


GENERAL CATALOGUE

PHYSICS INSTRUMENTS



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RLP101- FORCE INTO FORCE ARM APPARATUS

DESCRIPTION-

Lever Apparatus: It consists of half-meter aluminium strip with stone agate knife edge at the centre. The aluminium strip is firstly painted and after that it is screen printed as 25-0-25 cm having zero at the centre. Two plastic hooks, which moves along the aluminium meter scale is also provided. These plastic hooks are used for carrying slotted weights. This set up is provided on a superior quality, duco painted, and sheet metal stand but without Weights.



RLP102- MAXWELL VIBRATION NEEDLE

DESCRIPTION-

For experiment on rigidity. Two solid and two hollow cylinders each 10cm long accurately fitting the bore of a hollow brass tube 40cm long are provided. The tube is also fitted with wire chuck and mirror, graduated scales and vernier on sliding weights. Complete with ceiling attachment without stand.



RLP103- WALL BRACKET FOR VIBRATION NEEDLE

DESCRIPTION-

A heavy cast metal L shape strip with chuck nuts and two holes for fixing on the wall.



RLP104- INERTIA TABLE

DESCRIPTION-

To determine the moment of inertia of an irregular body about an axis passing through its centre of gravity and perpendicular to its plane by dynamical method. It consists of an aluminium disc of approximately 6" Dia with a groove and having three masses in it. It can be suspended by a steel wire provided at the centre of a long frame work provided with circular base, which is also fitted with levelling screws.



RLP105- INERTIA DISC

DESCRIPTION-

Consisting of a brass Disc about 15 cm diameters, 6mm thick size with arrangement for clamping a split chuck without wall bracket



RLP106- INERTIA BAR

DESCRIPTION-

It consists of a solid brass rod of length 30cm and diameter 1.5cm, with centre split chuck for clamping and suspending

RLP107- INERTIA APPARATUS

DESCRIPTION-

All metal, the upright has a concave top. A metal ball and aluminium sheet piece is placed on it. A sudden blow with spring actuated striker causes the sheet to slide from under the ball which has no time to gain horizontal momentum, but drops into the concave top of the stand. It is used to explain first law of motion

RLP108- FLY WHEEL

DESCRIPTION-

Comprising of carefully machined and balanced cast iron wheel and steel spindle is supported on the ball bearings in strong iron brackets. The sides of wheel are smoothly red painted. The top of wheel is chrome plated and is marked with a thick red line. A pointer is fixed to one of the brackets. Diametric hole is drilled in the shaft to take pin and cord the base is provided with four holes so that the apparatus can be fixed to wall complete with cord and hook.

(a) 15cm wheel dia.

(b) 20cm wheel Dia

(c) 25cm wheel Dia

****ALSO PROVIDED WITH NEW REVOLUTION COUNTER***



RLP109- TORSION PENDULUM (5" BRASS DISC)

DESCRIPTION-

The one end of suspension wire hangs from the Universal Clamp with the help of a chuck nut and another end of wire is clamped to solid brass disc of 12.5cm Dia and 1.25cm thick with the help of chuck nut. A heavy metal ring of the same metal (brass) and the same outside diameter as the disc is included. When ring is placed on the disc, the moment of inertia and therefore the period of vibration of system is increased.

****ALSO PROVIDED IN 6" DIA DISC***



RLP110- TORSION PENDULUM (BRIDGE TYPE, SMALL SIZE)

DESCRIPTION-

Consisting of an aluminium disc 15cm diameter. Another small disc of iron C.P. having same diameter, as the interior of a grooved area of the bigger disc (the small disc has approx.8cm Dia and 1.25cm thickness). A tall U-shape metal bridge with a split chuck fitted into disc enable accurate suspension and torsion

RLP111- TORSION PENDULUM (BRIDGE TYPE, BIG SIZE)

DESCRIPTION-

Same as above but diameter of aluminium disc is 25 cm (larger size) and another smaller disc of iron C.P. has diameter of 10.5cm and thickness 1.25 cm.

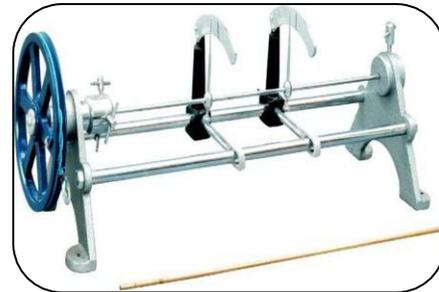


RLP112- TORSION APPARATUS SEARLE'S TYPE

DESCRIPTION-

Horizontal bench pattern. Two cast iron feet each with 3 through holes and grub securing screws, separated by 2 supporting rods, wheel 165mm Dia, over groove moving in ball bearings, mounted on front foot, with spindle carrying split collect chuck for holding one end of test rod, other end supported with clamping block through rear foot. With 2 brass scales graduated 30-0-30 in degrees, mounted on pillar supports, which are adjustable along the rod, 2 pointers with clamp for attaching to specimen, one each of brass and steel rods, cord & hook for carrying masses but without weights.

***ALSO PROVIDED WITH 1M LONG ROD**



RLP113-TORSION APPARATUS OR BARTON'S APPARATUS (VERTICAL PATTERN)

DESCRIPTION-

A steel frame mounted on a heavy cast iron base with levelling screws. Upper end of rod (under test) 900 mm length and 5mm Dia is clamped by a 3-jaw chuck and lower end is clamped into the axis of a tensional drum which can be rotated by putting load in the scale pan passing over two frictionless pulley. Freely sliding three circular scales graduated in single degrees can be clamped at any position. Three pointers for clamping to the test rod are provided. Complete with three test rods strings and two scale pans, but without weight.

RLP114-BENDING OF BEAM APPARATUS

DESCRIPTION-

Consisting of two G.clamp with knife-edge top. Comprising a metal bar of 100 cm length having width 25 mm and thickness 4.5 mm. Sharp knife edge with hanger is also provided which moves on metal bar. A speedometer fitted on a cast iron stand (Specially designed for this apparatus) with electric contacts is also provided, but without weight.

RLP115-BENDING OF BEAM APPARATUS KOENIGS METHOD

DESCRIPTION-

It consists of a brass beam 9mm square, one meter long resting on the knife edges of two heavy table clamps. A sharp knife edge with hanger rest on the beam. Two tilting type mirror are also provided for this apparatus but without weight.

RLP116-CANTILEVER APPARATUS

DESCRIPTION-

In this apparatus, a hook is provided to one end of steel C.P. bar having dimension 100*18*0.3cm. The whole metallic bar is marked with lines. The all lines are separated from each other at a distance of 5 cm. The cantilever bar is held horizontally keeping its breath in horizontal position.



RLP117-G CLAMP

DESCRIPTION-

Cast Iron with clamping screw for general in Laboratory.

- (a) 2" (50mm)
- (b) 3" (75mm)
- (c) 4" (100mm)
- (d) 5" (125mm)
- (e) 6" (150mm)



RLP118-COMPOUND PENDULUM

DESCRIPTION-

It consists of a powder coated steel bar of dimension 100* 3.75*0.6cm with a number of equidistant holes drilled along its length at equal intervals of 5cm. The pendulum is provided with two removable knife edges passing through any one of the holes. Complete with wall bracket.



RLP119-COMPOUND PENDULUM (BRASS)

DESCRIPTION-

A chrome plated brass bar of dimension 100*25*0.6cm Bored of equal intervals of 5cm and provided with removable knife edge. Complete with wall bracket

RLP120-COMPOUND PENDULUM **(STAINLESS STEEL ROD TYPE)**

DESCRIPTION-

It consists of a stainless steel rod of 1meter long and 1.0cm diameter. The S.S. rod is marked with lines at equal distance of 5cm. Two circular removable knife edges are provided. Complete with wall bracket.

RLP121-KATER'S REVERSIBLE PENDULUM

DESCRIPTION-

Consisting of 120*1.2cm brass bar with pointed ends carrying two sets of adjustable knife edges and two large and small brass weights. Two similar hard wood weights are provided. Completed with cast iron wall bracket.

**ALSO PROVIDED IN STEEL C.P ROD*

**ALSO IN STAINLESS STEEL ROD & WEIGHT*



RLP122-STAND FOR KSTER'S REVERSIBLE **PENDULUM OR COMPOUND PENDULUM**

DESCRIPTION-

This stand is suitable for all types of compound pendulums of Katter's pendulums listed above Heavy type stand having approx. height 52 inches.

RLP123-BIFILAR PENDULUM

DESCRIPTION-

It consists of a heavy cast iron rectangular plate of dimension 15*10*1.5cm. The plate has six holes two holes on top, two holes on front side and two holes on the third side of the top. The plate is suspended by means of two strings of equal lengths from a rigid suspended (i.e. a heavy T shaped clamp with two split chuck is provided on the heavy base). When the plate is suspended freely, the two strings will be equally inclined to the horizontal face of the plate.



RLP124-INCLINED PLANE DELUXE

DESCRIPTION-

The convenience and versatility of this unit has made it very popular. It consists of 15*60cm. wooden board with glass top hinged on an iron base to which a sector with graduated arc and vertical scale is provided. The plane may be clamped at any angle up to 45 degree. A 5cm dial frictionless pulley to attach to the end by means of a clamp adjustable to any necessary position. Complete with brass roller, cart and pan, but without weights

RLP125-INCLINED PLANE

DESCRIPTION-

Made of polished wood size 7.5*60cm with frictionless pulley. Superior quality, adjustable with graduated cast aluminium arc, iron roller, glass plate and scale pan.

***ALSO AVAILABLE IN BRASS PARTS**



RLP126-PARALLELOGRAM OF FORCE APP. METAL STAND TYPE

DESCRIPTION-

This item is similar to the wall type but is intended for use in laboratories where wall space is limited. At thick plywood piece of thickness 12 mm having substantial metal stand with 2 set of z-pulley and 3set of (50*5gm) slotted weights



RLP127-FRICTION APPARATUS

DESCRIPTION-

Mode of Polished Wood Size 7.5*60cm.superior quality with glass plate sliding block, pulley & scale pan.

****ALSO IN superior quality and having two sliding blocks with four different surfaces of different materials.***

RLP128-FLETCHER TROLLEY

DESCRIPTION-

All metal, capable of being assembled and dismantled easily. A large metal trolley with removable cylindrical weights is fitted with wheels which run with very little friction on a track of two steel rods 150 cm long. The rail rods are held in heavy clamps which are fitted in two vertical rods, mounted on cast iron feet. The steel vibrator is fitted to one of the vertical rods and frictionless pulley to the other. The unit is capable to verify the law under different conditions. Complete with cord, scale pan, brush and ink.

RLP129-MOMENT DISC APPARATUS

DESCRIPTION-

A well balanced; machine turned aluminium disc rotating at about its axis and can be clamped on a tripod stand in vertical plane. The disc moves on ball bearing and has number of holes, two pins carrying scale pans may be inserted into the holes at any desired place. Complete with horizontal graduated mirror glass scale and plumb line

RLP130-UNIVERSAL FORCE TABLE

DESCRIPTION-

For experimentally verifying the laws of triangle, parallelogram and polygon of forces. Comprising of a circular 40 cm. Diameter an aluminium disc, graduated into 360 degrees. Complete with levelling screws, four sliding clamp pulleys, central ring, string and four sets of iron nickel led slotted weights, each set containing nine slotted weights and one hanger of 50 gms.each.



RLP131-WHEEL AND AXLE SIMPLE FORM

DESCRIPTION-

Comprising two polished wooden wheels with grooves 7.5 cm and 12 cm in diameter respectively, fixed rigid together and mounted on steel centres on wooden base. Complete with cord and hooks. Without weights.



RLP132-WHIRLING TABLE

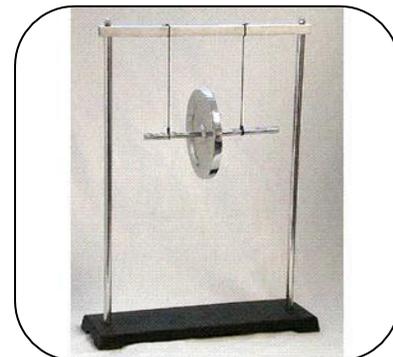
DESCRIPTION-

Sturdily built and specially designed. The hand rotator meets the requirements for many different applications in the laboratory. This unit can be used either vertically or in horizontal position.

RLP133-MAXWELL WHEEL

DESCRIPTION-

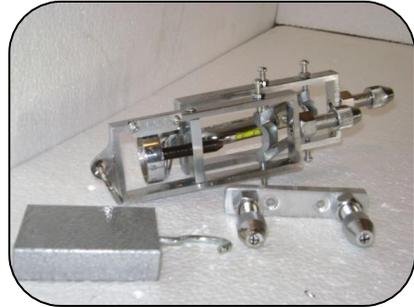
The validity of the law of conservation of energy is demonstrated using the Maxwell disk by converting potential into kinetic energy (Translation and rotational energy).



RLP134-YOUNG'S MODULUS APPRATUS (SEARL'S PATTERN)

DESCRIPTION-

Comprising of two brass frames with specially designed self centring chucks, connected by a pivoted link carrying a sensitive spirit level and a standard micrometer head reading to 1/100 mm. Supplied in case with a calling bracket, constant weight and suitable wire. Without weights



RLP135-YOUNG'S MODULUS APPRATUS (VERNIER TYPE)

DESCRIPTION-

Simple but very efficient consisting of 10 cm brass scale and vernier to read 0.1 mm with slide. Complete in case with wire Ceiling attachment and constant cast iron weight.



RLP136-(A) HOOK'S LAW APPARATUS

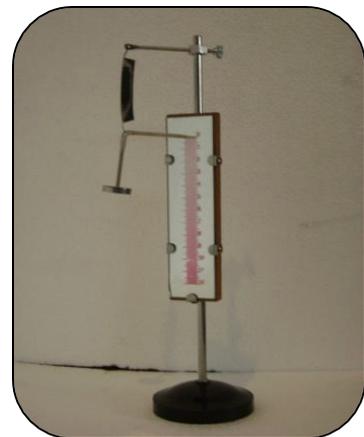
DESCRIPTION-

Consisting of 30cm long mirror scale, spring, slotted weights with hanger and pointer, complete on heavy tripod stand.

RLP136-(B) HOOK'S LAW APPARATUS

DESCRIPTION-

Consisting of a 12cm. Aluminium scale, spring, slotted weight hanger (without slotted weights) complete on metallic stand.



RLP137-RIGIDITY APPARATUS (SEARLE'S PATTERN)

DESCRIPTION-

One can find the modulus of rigidity and Young's modulus for the material of wires by Searle's method. The 30cm long wire under test is connected to two brass rods about 30cm long at their mid points by two screws fitted at the ends of the wire. The rods are suspended from hooks. Complete with three test wires with connecting screws.



RLP138-RIGIDITY APPARATUS (DYNAMICAL METHOD)

DESCRIPTION-

It consists of an iron having length 16" and diameter 1". The circular rod is graduated 15-0-15cm. The circular weight with thumb screw which fits into the rod is also provided.

RLP139-POISSON'S RATIO OF RUBBER APPARATUS

DESCRIPTION-

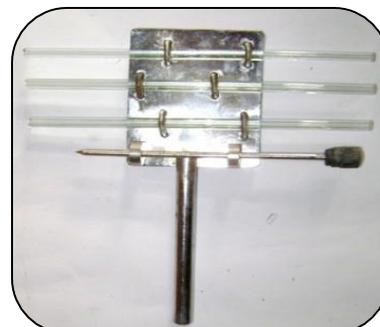
Consisting of a cycle rubber tube of about one meter length with a small pointer on a heavy cast iron stand.



RLP140-CAPILLARY TUBE CLAMP

DESCRIPTION-

The apparatus comprises a metal frame, on which four capillary tubes of 10cm long and of different internal diameters are clamped with the help of small metal brackets. The 9mm rod is also attached to metal plate, so that complete clamp can be held in any stand for determining the surface tension of liquid by capillary rise method.



RLP141- RISING TABLE

DESCRIPTION-

Having a cast aluminium 4" Dia table with adjustable stand. Maximum height capacity 12".



RLP142- SLOW MOTION STAND

DESCRIPTION-

Raising table. All metal having brass table of 10cm Dia with three levelling screws. Coarse and fine height adjustments are provided, very superior and an ideal apparatus.

RLP143-QUINCK'S SURFACE TENSION APPARATUS

DESCRIPTION-

For determination of surface tension of mercury. It comprises a circular metallic plate with three levelling screws and a sensitive spirit level.

RLP144- SEARL'S SURFACE TENSION BALANCE

DESCRIPTION-

For measuring the surface tension of soap film or any of transparent liquid by the deflection of beam carried by a stretched wire. Fitted on tripod stand with levelling screw.



RLP145- JAEGER'S SURFACE TENSION APPARATUS

DESCRIPTION-

Having a wide mouth reagent bottle fitted with a cork having two holes, in one hole a dropping funnel is fitted. Complete with manometer, capillary tube. All mounted on suitable wooden stand. Without aspirator.



RLP146- VISCOSITY APPARATUS STOKES METHOD

DESCRIPTION-

A superior and sturdy apparatus. A Borosil glass tube of about 30 cm Dia and one meter long is made to stand vertically firmly in between two upright bars with the help of clamps on a heavy cast iron base. Both sides of the tube are open. On the lower end a rubber cork without holes is fitted whereas on upper end a rubber cork with a funnel is provided. With two rubber band index mark and 6 steel balls of different diameter. Without lead shot.



RLP147- MAYER'S VISCOSITY APPARATUS

DESCRIPTION-

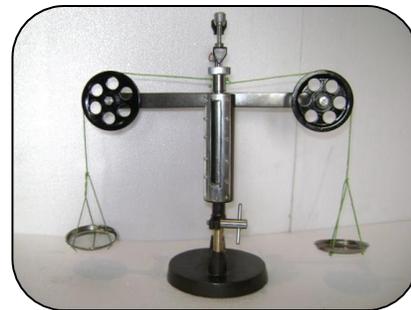
In this, we can determine viscosity of liquid by oscillating disc method described by O.E. MAYER. A flat disc is suspended horizontally by a phosphorous bronze suspension which is attached to a rod rigidly fastened to the centre of the disc. This rod carries a cross bar whose ends have a screw thread, along which two masses are screwed to balance the disc horizontally. A small concave mirror is fastened to the rigid support, complete mounted on base, but without lamp and scale outfit.

RLP148- VISCOSITY SEARLE'S PATTERN

DESCRIPTION-

It is used for measuring viscosity of very viscose liquids.

The outer cylinder can be clamped at any desired height and the inner cylinder is graduated in mms and slot is covered by a transparent cover. Complete with scale pans and releasing pin.



RLP149- BAR & GAUGE

DESCRIPTION-

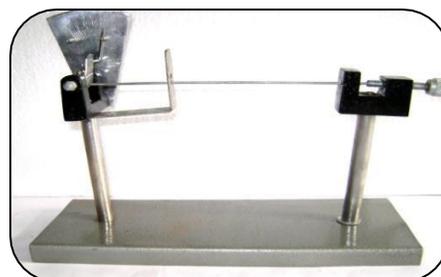
To show liner & superficial expansion of solids.
With two wooden handles.



RLP150- PYROMETER

DESCRIPTION-

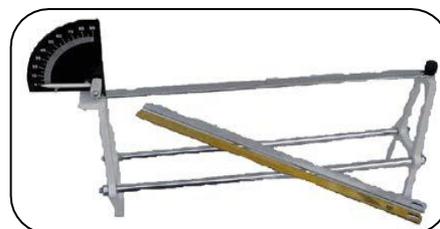
With three test rods of different metals, and a spirit furnace. The whole apparatus is of metal and with engraved scale.



RLP151- PYROMETER SUPERIOR PATTERN

DESCRIPTION-

This simple form of linear expansion apparatus is supplied with one each aluminium iron and brass expansion bars (length 380mm) any one of which can be fixed to one upright and resting on a pointer on the other. Scale reading 0 to 90 deg.



RLP152- COEFFICIENT OF LINEAR EXPANSION APPARATUS

DESCRIPTION-

(Horizontal type) fitted with speedometer.
Complete with 3 different metal rods, 50cm.

Long iron pipe.

***ALSO WITH BRASS NICKELLED PIPE, SUPERIOR QUALITY**



RLP153-SEARLE'S THERMAL CONDUCTIVITY APPARATUS

DESCRIPTION-

Consisting of cylindrical copper rod with its one end surrounded by a steam jacket for heating it from a boiler and the other end is kept cool by a stream of water flowing through a spiral tube provided at that end. Fitted in wooden case lined with felt. The front portion of the case is removable. Without thermometers or steam boiler.

(a) Size of rod 30cm long 1.8cm dia.

(b) Size of rod 30cm long 2.5cm dia.

(c) Size of rod 30cm long 3.7cm dia.



RLP154-LEE'S AND CHARLTON'S APPARATUS

DESCRIPTION-

For determining the relative conductivity of thin layers of materials, it consists of cylindrical brass slab of 11cm Dia and 10.5mm thick. On this rest a 4.5cm deep brass hollow cylinder (Steam Chest) of this same Dia with inlet and outlet tubes for steam. A hole for thermometer is drilled radially in each, and the cylindrical brass slab is fitted with eyelets to enable it to be suspended by three strings from stout annular ring. The ring is held on a heavy Retort Stand complete as above with accessories but without thermometer.

***ALSO BRASS CYLINDRICAL SLAB IS REPLACED BY IRON CYLINDRICAL SLAB OF SAME SIZE**



RLP155- JOULE'S CALORIMETER

DESCRIPTION-

(Consisting of a copper calorimeter of 5*7.5cm size with outer vessel of well-polished wood fitted with Bakelite top with hole for thermometer and stirrer. Two terminals are connected to coil of wire for passing current

***ALSO WITH COPPER CALORIMETER OF 7.5*10CM SIZE.**

RLP156- CALLENDAR & BARNE'S CONTINOUS FLOW APPARATUS

DESCRIPTION-

(Consisting of a copper calorimeter of 5*7.5cm size with outer vessel of well-polished wood fitted with Bakelite top with hole for thermometer and stirrer. Two terminals are connected to coil of wire for passing current thick brass sheet. Without thermometers or meters



RLP157- CONSTANT LEVEL TANK

DESCRIPTION-

For maintaining a uniform flow of water through calorimeters or other equipment regardless of pressure fluctuations water supply line The level cannot rise above a central overflow tube in the chamber.

Consisting of a copper vessel of 100*75mm diameter with tubes for water inlet, outlet and overflow. A clamp for to any 9mm support rod is providing. With retort stand of 6"*4"*18"*/8".



RLP158- JOULE'S MECHANICAL HEAT EXPERIMENT APPARATUS

DESCRIPTION-

(The apparatus has been designed to explain the basic principle of production of heat by rotating of vanes friction. It consists fixed vanes encased in a wooden case lined with felt. The box can slide freely on a wooden base and is fitted with thermometer clamping device. A rotating cast aluminium cylinder rotates freely on a cast metallic pedestal and to its axle rotating vanes is provided which converts the kinetic energy into heat energy and temperature of water in copper vessel rises after two to three minutes of rotation. Two pulleys and fitted on aluminium sliding bracket. Complete as described & with two set slotted weights and cord. But without thermometer into heat energy and temperature of water in copper vessel rises after two to three minutes of rotation. Two pulleys and fitted on aluminium sliding bracket. Complete as described & with two set slotted weights and cord. But without thermometer. The above apparatus is also provided with non-resetable zero revolution and shown in the diagram & with two set slotted weight and cord. But without thermometer.



RLP159- CLEMENT & DESORME'S APPARATUS

DESCRIPTION-

It consists of a glass reagent bottle of 10 litres capacity fitted with leak proof brass cap. The cap is fitted with one bent tube, one stopcock for connection to a pump and another stopcock for opening to air. It is provided with a football pump for filling air and one manometer on stand with scale. Without mercury.

RLP160- ANEMOMETER CUP COUNTER AS PER ISI

DESCRIPTION-

Specification No. is 5912-12, the instrument has cup wheel consisting of three conical cups in a horizontal plane. The cup wheel spindle is of stainless steel and connected worm gearing to a revolution counter mounted in water proof housing. By observing the counter reading at the beginning and end of any period of interest the average wind speed during the interval can be calculated. The counter observing window is sloped to permit easy reading when mounted on the mast.



RLP161- WIND VANE

DESCRIPTION-

It meets three important requirements for accurate indication of wind direction. It is designed to produce the maximum of torque relative to its moment of inertia for a given change in wind direction. It rotates with minimum friction, and is balanced to avoid bias towards any particular direction. Most suitable for mounting on buildings very useful Meteorological departments. As per I.S.I. specification with cardinal points on cast iron stand.



READING TELESCOPE

RLP201- READING TELESCOPE, COLLEGE PATTERN

DESCRIPTION-

The superior quality achromatic objective has an aperture of 25mm and has focal length of 17.5cm. The carriage of the telescope (with up and down motion, improved design, college pattern) tube is fitted with vertical movement by a fine micrometer achromatic objective has an aperture of 25mm and has focal length of 17.5cm. The carriage of the telescope (with up and down motion, improved design, college pattern) tube is fitted with vertical movement by a fine micrometer screw. Focusing arrangement is given by rack and pinion. Complete on a heavy metallic stand having pillar of 18" length with scale and scale holder.



RLP202- ADVANCED READING TELESCOPE

DESCRIPTION-

Achromatic object glass, focal length 178 mm clear apertures, focusing by rack and pinion (with up and down motion). Carriage for telescope with adjustable ring to stop abrupt falling fitted with adjustable screws for precise vertical and horizontal positioning; scale and scale holder are provided with stand. 25mm Dia steel pillar, fitted on a heavy cast iron base with three levelling screws. Both tubes of the telescopes are of brass. With scale holder.

RLP203- READING TELESCOPE

DESCRIPTION-

Simple form focusing from one meter to infinity with universal clamp tripod base stand 18cms focus object glass Focusing arrangement is provided with rack and pinion arrangement.

RLP204- OPTICAL LEVER

DESCRIPTION-

Simple form focusing from one meter to infinity with universal clamp tripod base stand 18cms focus object glass Focusing arrangement is provided with rack and pinion arrangement.

RLP205- ASTRONOMICAL AND TERRESTRIAL TELESCOPE COMBINED

DESCRIPTION-

It is light and easy to manipulate and high magnifying power. Overall length of Astronomical Telescope is 85cm fitted with high class achromatic objective of Dia 45mm having focal length 22 inches. Astronomical Telescope is used as a Terrestrial Telescope. Complete with velvet lined case.



RLP206- TRAVELLING MICROSCOPE

DESCRIPTION-

With horizontal and vertical scales. The bed is of cast iron and accurately machined. The horizontal carriage is machined and inters ground on the guide ways of the horizontal bed. The carriage is fitted with vertical brass pillar carrying a microscope tube on a ground fitted vertical carriage. The base is fitting with two levelling screws Horizontal scale is 20cms and vertical 15cms. Long. Both the horizontal scale and vertical carriages are provided with slow motions, which travels app. 3cms in one traverse. Microscope tube is provided with rack & pinion. A milk white Perspex platform is provided on the horizontal bed. Vernier constant 0.001cms. Complete in well-polished wooden case. Having stainless steel scale.



RLP207- VERNIER MICROSCOPE (SIX POSITION MICROSCOPE)

DESCRIPTION-

For use in various positions. Microscope is mounted on a travelling carriage sliding along the table of the instrument screw. Scale is 17cms. -Long and white Perspex platform is provided, vernier constant 0.001cms. Complete in well polished wooden case. Having stainless steel scale.



RLP208- NEWTON'S RING APPARATUS

DESCRIPTION-

Comprising a pair of glasses one plane and the other slightly convex in metal frame with three screws for applying pressure:

(a) 50mm dia (b) 60mm dia (c) 75mm dia



RLP209- NEWTON'S RING EXPERIMENT

DESCRIPTION-

Specially deigned for Newton experiment. It can also be used in various positions. The bed is of cast iron and carries the machined guide ways. The scale is 17cms long. The sliding carriage is provided with microscope slow motion and travels app. 3cms in one traverse. Microscope tube is fitted with achromatic objective and focusing is provided with rack and pinion. Vernier constant 0.001cm. Complete in well polished wooden case. Having stainless steel scale and vernier.



RLP210- SINGLE SLIT

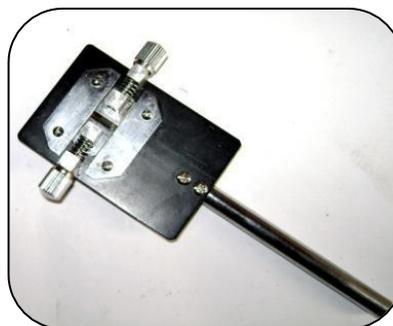
DESCRIPTION-

All metallic, diffraction grating clamp type and is fitted on prism table of spectrometer for interference of light experiment

RLP211- DOUBLE SLIT

DESCRIPTION-

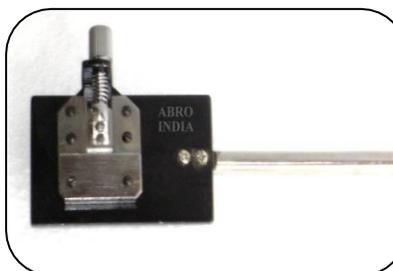
All metallic diffraction grating clamp type and is fitted with two micrometers screw slides forming a double slit with fine edges in the centre of the vertical clamp holding device. Very superior quality.



RLP212- ADJUSTABLE SLIT

DESCRIPTION-

Drum type for finding Resolving Power in velvet lined case.



RLP213- MODEL OF EYE

DESCRIPTION-

Showing its defects and their rectification.
A very interesting model showing how Myopia and Hypermetropia are caused and cured in a Normal Eye.

RLP214- NEWTON'S (COLOUR DISC)

DESCRIPTION-

Mounted on metal stand with driving wheel, belt and handle export quality



RLP215- BUNSEN GREASE SPOT PHOTOMETER

DESCRIPTION-

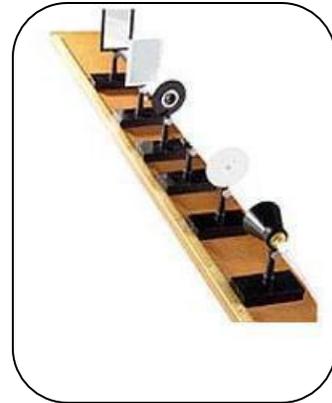
Having inclinable wooden top, two removable mirrors and one Bunsen spot disc on adjustable metal stand. With the help of this unit the two sides of Bunsen spot can be seen at the same time.

OPTICAL BENCHES

RLP216- OPTICAL BENCH WITH WOODEN BED AND METAL ACCESSORIES

DESCRIPTION-

One meter long seasoned evenly top with engine divided scale in mms on heavy supports. 4 metal base sliders Include 4 metal accessories. Out of four sliders two sliders are provided with transverse slow motion arrangement.



RLP217- OPTICAL BENCH

DESCRIPTION-

Square Rod Type (Single rod): With heavy cast iron stands fitted with levelling screws. The square rod is 18 mm size & deeply graduated in mms. It is supplied with four sliders. Two of the sliders are provided with lateral motion. Complete with two lean holders & two index pins.

- a) One meter long
- b) As above by but 1/1/2 meter long

RLP218- OPTICAL BENCH DOUBLE ROD SCHOOL TYPE (1 METRE LONG)

DESCRIPTION-

Double bar type 1 meter long with 4 metallic sliders two lens holders and two needles:

- a) Having both steel C.P Rods.
- b) Having both brass rods inside shafting

RLP219- OPTICAL BENCH DOUBLE ROD SCHOOL TYPE 1 & 1/2 METRE LONG)

DESCRIPTION-

Same as above but the rods are supplied 1&1/2 meter long.

- (a) Having both iron C.P. Rods
- (b) Having both Brass rods inside shafting

RLP220- OPTICAL BENCH DOUBLE **BAR HALF SHAPERED**

DESCRIPTION-

One meter long consists of two steel rods C.P. with cast iron provided with four metal riders two of sliders have transferees motion with two lens holder & needle.

- (a) **OPTICAL BENCH: Same as above but both rods of steel C.p.**
- (b) **OPTICAL BENCH: Same as above but both brass covered pipe inside steel rods.**
- (c) **OPTICAL BENCH: Same as above but both stainless steel rods.**



RLP221- OPTICAL BENCH DOUBLE **BAR HALF SHAPERED**

DESCRIPTION-

1&1/2meter long consists of two steel, rods C.P. with cast iron provided with four metal riders two of the sliders have transferees motion with two lens holder & two needles.

- (a) **OPTICAL BENCH: Same as above but both rods of steel C.P.**
- (b) **OPTICAL BENCH: Same as above but both brass-covered pipe inside steel rods.**
- (c) **OPTICAL BENCH: Same as above but both stainless steel rods.**

RLP222- OPTICAL BENCH DOUBLE **BAR FULL SHAPERED**

DESCRIPTION-

One meter long consists of two rods on heavy sliders; two sliders have liter motion with two lens holder & two needles.

- (a) **OPTICAL BENCH: Same as above but both rods of steel C.P.**
- (b) **OPTICAL BENCH: Same as above but both brass -covered pipe inside steel rods.**
- (c) **OPTICAL BENCH: Same as above but both stainless steel rods**

RLP223- OPTICAL BENCH DOUBLE BAR FULL SHAPERED

DESCRIPTION-

1&1/2 meter long consists of two rods on heavy cast iron feet with levelling screws with four heavy riders two sliders have linear motion with lens holder & two needles.

- (a) **OPTICAL BENCH: Same as above but both rods of steel C.P.**
- (b) **OPTICAL BENCH: Same as above but both brass covered pipe inside steel rods.**
- (c) **OPTICAL BENCH: Same as above but both stainless steel rods.**

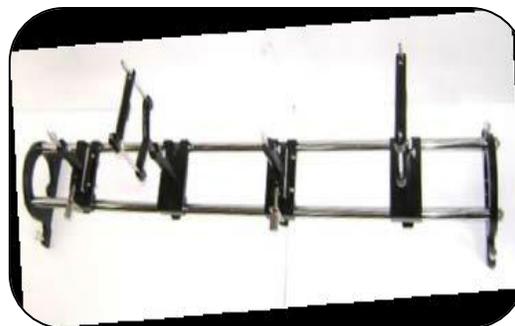


RLP224- OPTICAL BENCH DOUBLE BARS STANDARD PATTERN ONE METER LONG

DESCRIPTION-

For advance research work consists of two rods supported by heavy cast iron feet, provided with 4 metal riders and 4 accessories. Two of the sliders have transverse motion and one rod is engraved in mms. Improved design one meter long.

- (a) Having both steel C.p. rods.
- (b) Having both brass pipes inside shafting.
- (c) Having both S.S. rods instead of steel rod.



RLP225- OPTICAL BENCH DOUBLE BARS STANDARD PATTERN 1 & 1/2 METER LONG

DESCRIPTION-

Specifications are same as above but the rods are supplied with 1&1/2 meter length.

- (a) Having both steel C.P.rods.
- (b) Having both brass pipes inside shafting.
- (c) Having both S.S.rods instead of steel rod.

RLP226- SENIOR OPTICAL BENCH **OSAW TYPE**

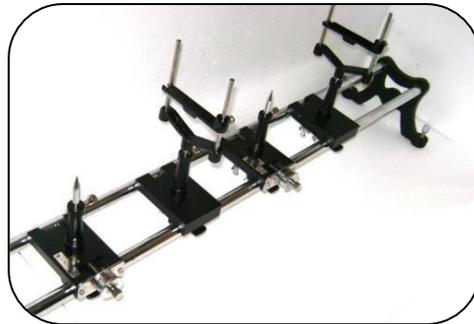
DESCRIPTION-

Consisting of two steel rods of 1" diameter supported on a heavy cast iron feet provided with levelling screws, one rod is graduated in millimetres. Heavy metal sliders each take 12.5mm diameter stem, index mark attached to each slider. With third supporting rod. Complete with two-lens holders spring type and centring pin.

NOTE: This bench is supplied only in 1&1/2 meter length.

(a) M.S.Rod

(b) Stainless steel Rod



ACCESSORIES FOR OPTICAL BENCHES

RLP227- GROUND GLASS SCREEN : In Metal Frame.

RLP228- GROUND GLASS SCREEN : In Bakelite Frame.

RLP229- LENS HOLDER : Metallic nicely Finished for mirror and lenses pay type heavy pattern

RLP230- LENS HOLDER : Spring Action Brass

RLP231- CANDLE HOLDER : All metal on adjustable metal stand

BI-PRISM ASSEMBLY

RLP232- BI-PRISM ASSEMBLY WITHOUT OPTICAL BENCH

DESCRIPTION-

Consist of following apparatus:-

BIPRISMHOLDER: Has fine radial motion by a fine pitch screw.

AUTO ACTION LENS HOLER: with automatic spring action for equal opening & closing of both sides.

MICROMETER EYEPIECE: Rams den Eyepiece, 10*, is carried on a slider which moves along a micrometer screw. Perfectly made.

OPTICAL: Optical true, precision ground stainless jaws, spring action for opening of jaws eliminated to ensure original accuracy even after prolonged use. Jaws open uniformly all along through a milled head. Jaw alignment tested for optical accuracy. Made for a lifetime of accurate use.

BIPRISMHOLDER: Has fine radial motion by a fine pitch screw.

AUTO ACTION LENS HOLER: with automatic spring action for equal opening & closing of both sides.

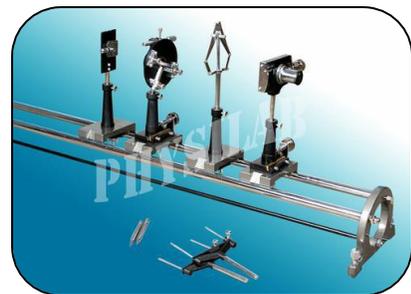
MICROMETER EYEPIECE: Rams den Eyepiece, 10*, is carried on a slider which moves along a micrometer screw. Perfectly made.

OPTICAL: Optical true, precision ground stainless jaws, spring action for opening of jaws eliminated to ensure original accuracy even after prolonged use. Jaws open uniformly all along through a milled head. Jaw alignment tested for optical accuracy. Made for a lifetime of accurate use.

RLP233- BI-PRISM ASSEMBLY COMPLETE WITH OPTICAL BENCH OF STEEL C.P RODS

DESCRIPTION-

Complete with optical bench of steel C.P. rods 1&1/2 meter long and Bi-Prism Assembly as per Cat. No. 232.



RLP234- BI-PRISM ASSEMBLY COMPLETE **WITH OPTICAL BENCH OF BRASS PIPES**

DESCRIPTION

Complete with optical bench of brass pipes (inside shafting) 1&1/2meter long and Bi-Prism Assembly as per Cat. No. 232.

RLP235-BI-PRISM ASSEMBLY COMPLETE **WITH OPTICAL BENCH OF** **STAINLESS STEEL M RODS**

DESCRIPTION

Complete with optical bench of Stainless Steel rods 1&1/2 meter long and Bi-Prism Assembly as per Cat. No.232.

NODAL SLIDE ASSEMBLY

RLP236- NODAL SLIDE ASSEMBLY

DESCRIPTION

Consist of following items.

NODAL UPRIGHT: Consists of a combination of Single & double lens holder on a mounting rotating along the vertical axis. -The combination lens holders are adjustable in height and the single & twin Lens holders can either be moved together by rack & pinion or relative to each other by sliding. These motions are read by individual pointer on a mm scale. The whole mount can rotate along its vertical axis and the degree of rotation read on a circular scale with 3" steel C.P. stem.

MIRROR: Plain, inclinable with 3" steel C.P. stand.

OPTICAL SLIT: with fine machined cross slit, one surface white & the other optical black, with 3" steel C.P. stem.

LAMP HOUSE: An electric bulb is encased in a metal case with cord & pin. It works on 220 Volt.



RLP237- NODAL SLIDE ASSEMBLY COMPLETE WITH OPTICAL BENCH OF STEEL C.P RODS

DESCRIPTION

Complete with optical bench of C.P. rods 1&1/2 METER LONG AND nodal Slide Assembly as per Cat. No. 236.

RLP238- NODAL SLIDE ASSEMBLY COMPLETE WITH OPTICAL BENCH OF BRASS PIPES

DESCRIPTION

Complete with optical bench of brass pipes (inside shafting) 1&1/2 meter long and Nodal Slide Assembly as per Cat. No.236.

RLP239- NODAL SLIDE ASSEMBLY **COMPLETE WITH OPTICAL BENCH** **OF STAINLESS STEEL RODS**

DESCRIPTION

Complete with optical bench of Stainless Steel rods 1&1/2 meter long and Nodal Slide Assembly as per Cat. No. 236.

RLP240- LUMMER BRODHUM PHOTOMETER

DESCRIPTION

The unit is encased in a special aluminium case with standard stem of 9mm dia. It is fitted with high class optics. Light from two different sources falls on either side of a uniform opaque white screen. This light is reflected by side reflectors (Special prisms) and passes through the Lummer Brodhum cube. The field of view can be seen through a telescope and the light intensities are compared directly. The photometer is mounted in a swivel bracket for proper adjustment with two-nose lamp house & electric bulb is in a metal cased with cord & pin finished optical block.



RESEARCH OPTICAL BENCH

RLP241- RESEARCH OPTICAL BENCH

DESCRIPTION

The Bed is a heavy cast iron with a strong central rib, thoroughly seasoned and aged before machining and grinding of its upper surface. Total length 180cms; with a machined full-length platform for the scale. The scale is from lifetime stainless steel fitted on its machined platform on the bed. Divided in mms to a length of 170cms. Accuracy of calibration # 0.01%.



THE CARRIAGE:

Four carriages are provided to carry the standard experimental accessories. Under- surfaces of carriages are machined true to fit the machined bed surface, and these machined surfaces are then jointly interground to give perfectly smooth sliding surfaces. While inter-ground tests are surfaces are then jointly interground to give perfectly smooth sliding surfaces.

While inter-ground tests are carried out to ensure elimination of lateral shift during slide movements. Stainless verniers fitted to the carriages read the scale to .01cm. The Biprism carriage is also provided with fine cross motion read by vernier to .01cm. Clamping arrangement is provided.

(a) OPTICAL SLIT: With finely ground stainless jaws, oil-ground & optically tested. Manipulation of jaw movement free from any spring control ensuring maintenance of original accuracy even after prolonged use. The following adjustments are provided for the slit and its carriage.

- Linear adjustment along the bed, read by vernier to .01cm
- Fine vertical adjustment by slow motion screw.

(b) BIPRISM HOLDER: Provided with the following adjustments:-

- Linear adjustment along the bed, read by vernier to .01cm.
- Fine vertical adjustment by slow motion screw.
- Fine cross motion by Micrometer screw read by vernier to .01cm.
- Quick radial motion along the horizontal axis.
- Fine radial motion along the horizontal axis.

(c) MICROMETER EYE PIECE: Provided with following adjustment:-

- Quick linear adjustment along the bed read by vernier to .01cm.
- Fine micrometer vertical adjustment
- Micrometers cross motion of Eyepiece along a 30-0-30mm scale read on a micrometer head to .001cm. Micrometer head fitted with anti-back-lash device.

VOLTMETER

RLP242 – WATER VOLTMETER

DESCRIPTION

Cup shaped with fitting and two graduated tubes. The vessel is mounted on a sturdy wooden base fitted with two terminals and platinum electrodes.

RLP243 – WATER VOLTMETER

DESCRIPTION-

New design having Perspex transparent rectangular trough fitted with carbon electrodes & two graduated test tubes. Mounted on well polished wooden base.

RLP244 – ELECTROLATING APPARATUS

DESCRIPTION-

Having a acrylic jar fitted on well polished wooden base with scheme of connection by metallic strips, copper anode and terminals. Without solution or cell

RLP245 – ELECTROLYSIS APPARATUS

DESCRIPTION-

Acrylic jar fitted on wooden base with four electrodes but without solution & cell.

RLP246 – ELECTROLYSIS OF NA₂CO₃

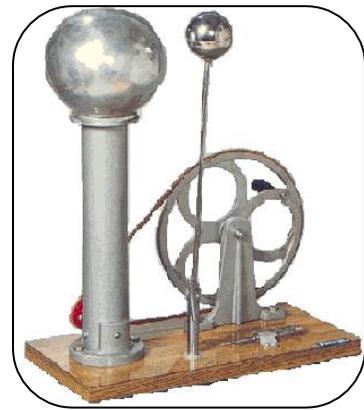
DESCRIPTION-

Acrylic jar fitted on wooden base with two carbon electrodes but without solution & cell.

RLP247 – VAN DE GRAFF GENERATOR

DESCRIPTION-

It is very good improvement over whims hurt machine. A very efficient apparatus and showing its field effect from a longer distance. Colleting sphere is of aluminium sheet and is removable to show the constructional detail. Fitted on wooden base with hand rotating wheel and connection to Earth, and a line tester.



RLP248 – VAN DE GRAFF GENERATOR MOTORISED

DESCRIPTION-

As above but fitted with F.H.P. electric motor working on 220 volts A.C./D.C. Mains current. Fitted on wooden base with line tester.



POTENTIOMETERS

RLP249 – POTENTIOMETER FOUR WIRES

DESCRIPTION

One meter long plywood Surmica top base Brass C.P. strips with pencil jockey.

RLP250 – POTENTIOMETER FOUR WIRES

DESCRIPTION-

One meter long plywood Surmica tip base brass C.P. strip Aluminium spring sliding jockey.

RLP251 – POTENTIOMETER FOUR WIRES

DESCRIPTION

One meter long plywood Surmica top base brass C.P. strips brass spring sliding jockey.

RLP252 – POTENTIOMETER FOUR WIRES

DESCRIPTION

One meter long superior on laminated board brass C.P. strips with pencil jockey .

RLP253 – POTENTIOMETER FOUR WIRES

DESCRIPTION

One meter long superior on laminated board brass C.P. Aluminium spring sliding jockey

RLP254 – POTENTIOMETER FOUR WIRES

DESCRIPTION

One meter long superior on laminated board brass C.P. strips brass spring sliding jockey.



RLP255 – POTENTIOMETER SIX WIRES

DESCRIPTION

One meter long superior quality on laminated board brass C.P. strips with pencil jockey.

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RLP256 – POTENTIOMETER TEN WIRES

DESCRIPTION

One meter long plywood surmica top base brass C.P. strips with pencil jockey.

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RLP257 – POTENTIOMETER TEN WIRES

DESCRIPTION

One meter long plywood surmica top base brass C.P. strips with Aluminium spring sliding jockey.

RLP258– POTENTIOMETER TEN WIRES

DESCRIPTION

One meter long plywood surmica top base brass C.P. strips Brass spring sliding jockey



RLP259– POTENTIOMETER TEN WIRES

DESCRIPTION

One meter long plywood surmica top base brass C.P. strips Brass spring sliding jockey

RLP260– POTENTIOMETER TEN WIRES

DESCRIPTION

With Pulley arrangement.

RLP261– POTENTIOMETER TEN WIRES

DESCRIPTION

Superior on laminated board brass C.P. strip with pencil jockey.

RLP262- POTENTIOMETER TEN WIRES

DESCRIPTION

Superior on laminated board with pulley arrangement and pencil jockey.

RLP263- POTENTIOMETER TEN WIRES

DESCRIPTION

With pulley arrangement and brass spring sliding jockey.

RLP264- POTENTIOMETER TEN WIRES

DESCRIPTION

Superior on laminated board, pulley arrangements and brass spring sliding jockey

RLP265- PENCIL JOCKEY

DESCRIPTION

With terminal & Pointed knife edge

METER BRIDGE OR WHEATSTONE BRIDGE

RLP266- METER BRIDGE OR WHEATSTONE BRIDGE WITH PENCIL JOCKEY

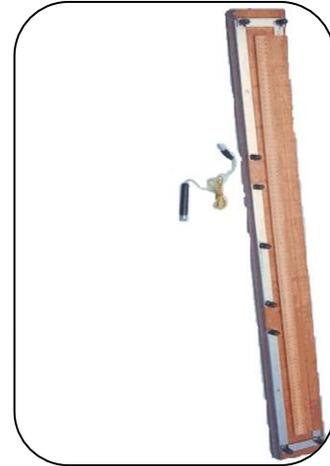
DESCRIPTION

The four-gap bridge has large and heavy brass strip mounted on a heavy 3/4" thick laminated base of size 44"*5" complete with pencil jockey and lead for connection overall dimension: 1.10m*100mm*50mm high including terminals.

RLP267- METER BRIDGE OR WHEATSTONE BRIDGE WITH SPRING TYPE JOCKEY

DESCRIPTION

Rest specifications are same as above. Pencil jockey is replaced by superior quality spring type, Brass Sliding jockey, which moves on metal rod, fitted on a laminated board of size 44"*5"*3/4."



CARRY FOSTER BRIDGE

RLP268- METER BRIDGE OR CARRY FOSTER BRIDGE

DESCRIPTION-

One meter long, Sunmica covered plywood base with brass strip and thick terminal 2 or 4 gap with pencil type sliding jockey.

RLP269- METER BRIDGE

DESCRIPTION-

Same as above but with Aluminium sliding jockey (spring type) on rod.

RLP270- METER BRIDGE

DESCRIPTION-

With brass C.P. strip, spring type brass sliding jockey on rod and wire stretched over Sun mica surface (whole plywood surface is covered with Sunmica sheet)

NOTE: All meter bridge is supplied with brass strip. However, they are also supplied with copper strip at an extra cost.

RLP301- VIBRATION MAGNETOMETER

DESCRIPTION-

In well polished wooden case with levelling screws and anti parallax mirror. Complete with brass fittings, magnet and brass bar of same size and stirrup. It has got removable glass font. (b) Ditto-Medium quality with aluminium parts fittings.

RLP302- DIP CIRCLE

DESCRIPTION-

All metal, standard make. The non magnetic cast metallic base is provided with three levelling screws. The horizontal base is graduated in 360 degrees. A vertical pillar with vernier moves smoothly on horizontal base. A vertical metallic case of cast aluminium with removable glass sides is fitted on the vertical pillar. The magnetic needle moves freely on Swiss cone bearings and is well balanced and magnetized; a sensitive spirit level is also provided.



RLP303- DIP CIRCLE

DESCRIPTION-

The case is made of aluminium; strongly magnetized cobalt steel needle fitted with imported hard axle rolls on knife edges agates and can be clamped when desired by a V clamp. A sensitive spirit level is provided. The tripod stand is provided with three levelling screws.

RLP304- DIP CIRCLE

DESCRIPTION-

Same as above but wooden case and aluminium parts.



RLP305- DEFLECTION MAGNETOMETER

DESCRIPTION-

With Pye type compass box which can be fitted on well polished plywood board, one meter long

RLP306- TANGENT MAGNETOMETER

DESCRIPTION-

The Bakelite ring of 6" dia is provided with three windings of 2.50 and 500 turns. Compass box and the ring can both be rotated independently of the base, which is fitted with levelling screws. Compass box is pye type with Bakelite case, metal dial, and antiparallex mirror and with aluminium pointer fitted with English jewel.



RLP307- TANGENT MAGNETOMETER

DESCRIPTION-

Same as above but having ringed provided with windings of 2, 5&50 turns. With compass box.

RLP308- COMPASS BOX

DESCRIPTION-

(For deflection magnetometer or tangent galvanometer). Comprising a Bakelite moulding case with white aluminium dial graduated 0-90 four times. The magnet with aluminium pointer is pivoted at the centre on the jewel so as to move frictionless.



RLP309- COMPASS BOX (PERMANENT MAGNET)

DESCRIPTION-

(For deflection magnetometer or Tangent galvanometer) comprising a thick Bakelite moulded case of 125mm dia. With lack aluminium dial graduated 0-90 four times, anti parallax mirror slot. The special permanent magnet (small in size) and a light aluminium pointer supported on a steel pivot by jewel bearing sets. The permanent magnet is designed in such a way so that it has maximum magnetic field strength.

RLP310- STEWART & GEE APPARATUS

DESCRIPTION-

It consists of circular frame made from non- magnetic silver aluminium alloy. An insulating copper wire wound on a frame. The ends of the wires are connected to the terminals, which are fitted on the superior quality wooden board. A rectangular frame is supported on wooden board Anodized aluminium rods are graduated up to 50cms on both sides.

Superior quality permanent magnet compass box moves in a platform. This platform moves on the rectangular frame along the axis of coil. The compass is so arranged that centre of the magnetic needle lies on the axis of the coil with compass box.

RLP311- LAMP & SCALE

DESCRIPTION-

Extra superior quality and heavy in construction. The lamp house is of cast aluminium, machine turned and finished in pleasing duco paint. It is fitted with 8 volts electric bulb through built in transformer and works on 220 volts A.C. Mains. Translucent Perspex scale graduated in 25-0-25cm is used in this unit. Complete on heavy cast iron stand with adjustable brackets for lamp house and scale with cord and pin plug.

***ALSO AVAILABLE WITH WORKING ON 220 VOLTS AC MAIN WITHOUT TRANSFORMER**



ELECTROSTATIC

RLP312- GOLDFLEAF ELECTROSCOPE

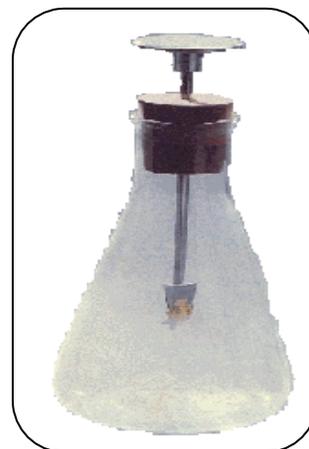
DESCRIPTION-

- (a) Bell jar type on wooden base, with aluminium parts fitting.
- (b) Ditto with brass parts fitting

RLP313- GOLDFLEAF ELECTROSCOPE IN GLASS FLASK

DESCRIPTION-

This practical and economical electroscope consists of leaf mounted on metal rod hold by rubber stopper in a conical flask. The shape of flask is such that it gives ample space for the leaf to diverge when charged.



RLP314- GOLDFLEAF ELECTROSCOPE BOX TYPE WOODEN CASE

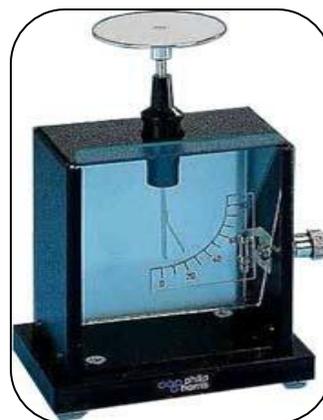
DESCRIPTION-

Bright wooden case with glass front & Aluminium fittings.

RLP315- GOLDFLEAF ELECTROSCOPE BOX TYPE METAL CASE

DESCRIPTION-

The metal case tends to eliminate vagrant deflections some times caused by charges residing on glass walls. The leaf support rod is the case are of glass to give good visibility.



RLP316- MAGNETIC FIELD APPARATUS

DESCRIPTION-

A small wooden table supports Bakelite ring with three coils of enamelled copper wire of 5,10and 15 turns respectively connected to the terminals at the edge of the base.

RLP317- BARLOW WHEEL

DESCRIPTION-

To show the motion of a movable current in magnetic field. Complete with shoe magnet and rotating copper star plate. Without mercury

SOUND

RLP318- SONOMETER APPARATUS

DESCRIPTION-

One meter of teak wood and well polished brass fitting with meter scale graduated both sides in centimetres. It is provided with wire of three different materials, sliding wedges and hook etc. but without weights.



RLP319- SONOMETER APPARATUS

DESCRIPTION-

One meter long, made of soft wood and well polished aluminium fitting with meter scale graduated both sides in centimetres. It is provided with wire of three different materials, sliding wedges and hook etc. but without weights.

***ALSO AVAILABLE WITH BRASS FITTING AND WITHOUT WEIGHT**

RLP320- RESONANCE APPARATUS

DESCRIPTION-

All metal fitted on heavy cast iron base with two levelling screws. Pipe dia 1" brass nickel led reservoir.

RLP321- RESONANCE APPARATUS

DESCRIPTION-

All metal fitted on heavy cast iron base with two levelling screws pipe dia 1" iron N.P.

RLP322- RESONANCE APPARATUS

DESCRIPTION-

A brass pipe one meter long. The pipe is fitted on a superior quality polished wooden board with heavy cast iron base & two levelling screws pipe dia 1" brass nickel led reservoir.



RLP323- RESONANCE APPARATUS

DESCRIPTION-

A brass pipe one meter long. The pipe is fitted on a superior quality polished wooden board with heavy cast iron base and two levelling screws pipe dia 1&1/4" brass nickel led reservoir.



RLP324- RESONANCE APPARATUS

DESCRIPTION-

A brass pipe one meter long. The pipe is fitted on a superior quality polished wooden board with heavy cast iron base & two levelling screws pipe dia 1&1/2" brass nickel led reservoir.

RLP325- RESONANCE APPARATUS

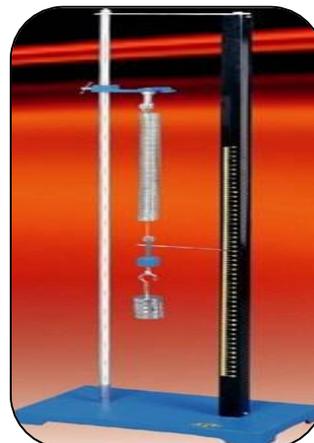
DESCRIPTION-

An iron pipe one meter long. The pipe is fitted on a superior quality polished wooden board with heavy cast iron base & two levelling screws pipe dia 1" iron N.P.

RLP326- K CONSTANT SPRING APPARATUS

DESCRIPTION-

The apparatus consists of a spiral spring about 25mm in diameter and 10cm long. The upper end of the spring is suspended from a chuck nut and lower end is provided with a small pointer which moves over a vertical wooden meter scale. The lower end is also provided with a hook for carrying weights. All this setup is provided on a heavy metal base and with weights.



RLP327- ELONGATION OF A SPRING

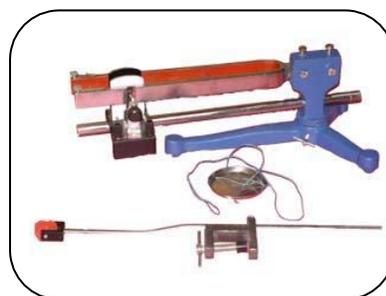
DESCRIPTION-

A spiral spring of 15mm diameter and 10cm long is firmly attached to a rigid clamp of a stand at its upper end with the help of a chuck nut. A slotted weight (50*5gm, set) is attached to its lower end. A pointer is fixed in a horizontal position at the lower end of the spring just above the hanger. A half meter scale is fixed vertically in the same stand. It is kept in the front of pointer such that tips of the pointer move just over the scale without touching it. With 50*5gm slotted weight

RLP328- MELDE'S APPARATUS OSAW **TYPE**

DESCRIPTION-

An electromagnet is arranged between the prongs of the fork without touching it. A small spring type strip just is attached to the one of the prong. A screw just makes contact with this strip, scale pan, bench clamp with pulley but without weight & thread.



RLP329- KUNDI'S TUBE

DESCRIPTION-

Superior quality with metal caps fitted on one meter long borosil Glass tube ends. Fitted on wooden base and with two pistons

RLP330- KUNDI'S TUBE

DESCRIPTION-

Most improved form consists of metal frame with two brackets with the help of which it can be clamped on the table. The Borosil glass tube is held in position in two sockets. Through one end a tight piston is introduced and through the other a loose one. The Test rod can be clamped rigidly at its centre and the outer length is rubbed with a leather piece on which resin powder is put. The glass tube is one meter long.

CLAMPS & STANDS

RLP331- BOSS HEAD

DESCRIPTION-

Aluminium alloy casted, Genson type can hold up to 15mm dia rod. Painted with chrome plated screws

(c) Ditto made of brass

RLP332-RETORT CLAMP (UNIVERSAL CLAMPS)

DESCRIPTION-

made of moulded aluminium and chromium plated.

RLP333-FOUR FINGER CLAMP

DESCRIPTION-

Cast aluminium clamp jaws and capable to hold up to 62mm dia articles, painted.

(a) Ditto made of brass jaws, oxidised or chromium plated.

(b) Base size 8" x 5" Rod 24" x 1/2"

(c) Base size 9" x 6" Rod 30" x 1/2"

RLP334-BURETTE CLAMP

DESCRIPTION-

Fisher type metal

RLP335-RETORT STAND

DESCRIPTION-

Superior cast iron having bases hammer tone painted and rod duly chrome plated.

(a) Base size 6" x 4" Rod 18" x 3/8"

(b) Base size 7" x 5" Rod 24" x 1/2"

(c) Base size 8" x 5" Rod 24" x 1/2"

(d) Base size 9" x 6" Rod 30" x 1/2"

RLP336- AIR PUMP

DESCRIPTION-

Having brass plate fitted with air light piston on well polished wooden board with stop cock.

- a) 12.5cm. dia plate
- b) 15cm. dia plate
- c) 20cm dia plate.

RLP337- BOYLE'S LAW APPARATUS

DESCRIPTION-

Superior quality a well polished wooden board fitted on heavy cast iron base with levelling screws.

RLP338- BOYLE'S LAW APPARATUS

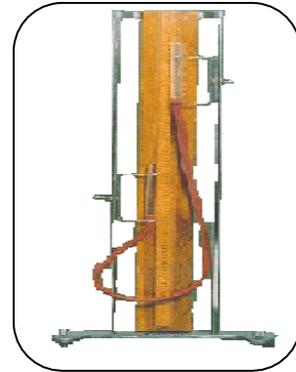
DESCRIPTION-

Of very superior quality and made of all metal parts.

RLP339- BOYLE'S LAW APPARATUS (GUJRAT PATTERN)

DESCRIPTION-

Of very superior quality and made of all metal parts.



MISCELLANEOUS ITEMS

RLP340- BIOGAS (GOBAR) PLANT, JUNIOR MODEL

DESCRIPTION-

An economical sized sectionised section cut model of all metal. The working principle the plant can be easily explained. Apparatus approximately size is 40cm*38cm.

RLP341- BIOGAS (GOBAR) PLANT, SENIOR MODEL

DESCRIPTION-

The properly constructed explanatory model showing inlet tank outlet tank, floating gasholder, gas delivery pipe etc. with wooden and metallic parts. Size 55cm*28cm and height about 54cm.

RLP342- CORK PRESSURE

DESCRIPTION-

- (a) Wheel type, superior heavy pattern of base.
- (b) Same as above but medium quality.

RLP343- BUCKET & CYLINDER

DESCRIPTION-

(Made of all brass parts with hooks for suspension.

- a) Small Size: Cylinder size 1&1/2"*1/2" (38mm*12.5mm)
- b) Big Size: Cylinder Size 2"*1/2" (50m*12.5mm)

RLP344- IMPULSES TURBINE

DESCRIPTION-

(Besides showing the action of a water wheel through glass window, the model is capable of running a small dynamo with bulb, working with pressure of water reservoir in college. Heavy & solid construction.

***ALSO AVAILABLE IN MEDIUM SIZE**



RLP345- SLOTTED WEIGHTS

DESCRIPTION-

(Made of cast iron, painted black.

- a) 250gms set of five with hanger
- b) 500gms set of five hanger
- c) 1kg. Set of five with hanger
- d) 2kg. Each 150.00
- e) 5kg. Each weight
- f) 10kg. Each weight
- g) 20kg. Each weight



RLP346- STAND FOR STANDARD SEXTANT

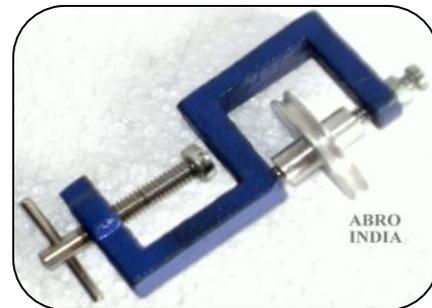
DESCRIPTION-

(Having a clamp for holding the sextant in any desired plane. 120cm feet high on heavy cast iron base.

RLP347- Z PULLEY

DESCRIPTION-

Cast Iron Clamp Pattern



RLP348- HYDRAULIC PRESS

DESCRIPTION-

(Very superior with cast metallic parts, actual working model fitted on wooden base.



RLP349- PULLEY APPARATUS

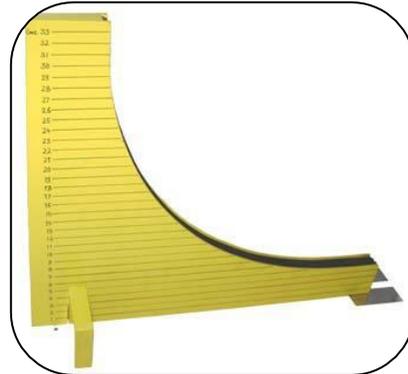
DESCRIPTION-

It consists of metallic base and two steel C.P. rods with two pulleys and two pans but without weight.

RLP350- LAW OF CONSERVATION OF MASS (COLLISION IN 2-D APPARATUS)

DESCRIPTION-

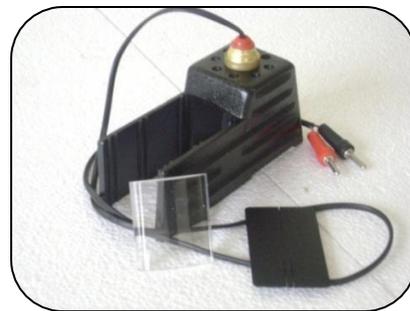
The apparatus consists of an attractive and durable curved track grooved in the middle on which rolls a steel ball, can be clamped on the table. A levelling screw is provided under the base to make the lower end of track horizontal. The track carries an adjustable automatic release system to permit setting of the ball at exactly the same starting point for multiple runs. An adjustable support attached to base holds the second ball directly in the path of the first, or displaced from the path to cause the collision to occur at different angles and at different distances from the end of the track.



RLP351- RAY BOX

DESCRIPTION-

Comprising a ray projector built in metallic case with slit on its side. Working on 220 volts A.C. mains through built in transformer and with Perspex accessories set of two.



RLP352- SCREW JACK

DESCRIPTION-

Small size, experimental model, an aluminium turned pulley of about 10cm dia is fitted on a screw jack fitted on a 12cm dia metallic circular base with an adjustable pulley and a linear vertical scale. Overall height of the model is about 15cm. with weights.

RLP353- STANDARD GYROSCOPE

DESCRIPTION-

The brass wheel is 7.5cm dia and 3cm at its rim, carefully balanced and all the three pairs of pivots are adjustable. Complete fitted on metal base.



RLP354- VISCOSITY APPARATUS BY CAPILLARY FLOW METHOD

DESCRIPTION-

With the help of this apparatus one can find the coefficient of viscosity of water by noting its flow through a capillary tube of uniform bore. A capillary tube of fine bore is fitted on a wooden board. Then two ends are joined by rubber tubing and it joins to two upright glass L-shaped tubes forming the manometer with scale. With the help of a pinch cock, a steady flow of water is maintained. Complete with a three limbed constant level tank of brass on stand with rubber tube glass parts are made of Borosil glass.



RLP355- SPECTROMETER

DESCRIPTION-

College type. Read by two opposite vernier reading to one minute of the arc. The objectives used in telescope and collimators are achromatic and provided with rack and pinion focusing arrangement. Telescope arm and prism table are provided with fine and coarse adjustment. The prism table is provided with three levelling screws and is engraved with concentric ring and lines. The scale and vernier are of stainless steel and are machine divided. Cover plate protects the scale from dust and carries two transparent windows for vernier. The instrument is finished in pleasing and smooth duco colour and other necessary parts are chromium plated.

With prism clamping device and diffraction grating stand in polished wooden case:

- a) 5" dia circle reading one minute ,
- b) 6" dia circle reading one minute,
- c) 6" dia circle reading 30 seconds,
- d) 7" dia circle reading 30 seconds,
- e) 9" dia circle reading 30 seconds,
- f) 10" dia circle reading 30 seconds



RLP356- HIGH GRADE SPECTROMETER

DESCRIPTION-

As above but with improvement that the telescope and collimator are held in support rigidly in perfect alignment. Vertical adjusting screws are provided to both the telescope and collimator. Clamping devices are also provided to lock telescope and collimator after adjustment:

- a) 5" dia circle reading one minute
- b) 6" dia circle reading one minute,
- c) 6" dia circle reading 30 seconds,
- d) 7" dia circle reading 30 seconds



RLP357- MAGDEBURG HEMISPHERE

DESCRIPTION-

Two concave aluminium cups having dia either 62mm or 75 mm are provided with handle and stop cock.



RLP358- HELMHOLTZ GALVANOMETER

DESCRIPTION-

Two equal coaxial coils separated by distance equal to the radius of coils with superior quality compass box.

RLP359- POLAROID

DESCRIPTION-

Two identical units with Polaroid disc mounted in a rotatable mount, with an aperture of 25 mm. both rotatable mounts have a lever to add rotation and a pointer which traverses a 75mm dia brass silvered scale divided into 360degree x 1degree.



RLP360- MELDE'S APPARATUS INCO TYPE

DESCRIPTION-

Rest specifications are same as AB312 but on steady streamlined base with provision for horizontal or vertical views



RLP361- STUDENT POLARIMETER

DESCRIPTION-

A corning glass tube is enclosed in a circular aluminium tube with top door for access & exclusion of external light. The circular scale is attached near to analyzer and a range of measurement is 0-360 degrees. Vernier movable on the scale enable reading of optical rotation to 60sec.



RLP362-STEFAN RADIATION CONSTANT APPARATUS

DESCRIPTION-

Comprising a blackened hollow hemisphere about 25cm dia. fitted in a wooden board lined with tin, and a steam chamber above the hemisphere to measure the mean uniform temperature.



RLP363–LINEAR EXPANSION APPARATUS **(VERTICAL PATTERN)**

DESCRIPTION-

It consist of nickel plated steam jacket (brass pipe of 50cm long & 2.5cm in dia). Containing 1 out of 3 test rods, the heavy support assembly so that steam jacket is mounted vertically, fitted with superior quality speedometer. The brass pipe having welded inlet & outlet tube for steam for opening of thermometer. Complete with 3 test rods but without thermometer



RLP364–RESONANCE APPARATUS

DESCRIPTION-

For measuring the resonant length of an air column driven by a turning fork. Comprises a brass tube 290 x 32mm dia fixed to a base 150 x 150 x 25mm with a sliding inner tube 300mm long which allows the length of the air column to be varied from 350 to 530 mm.



RLP365–DYNAMIC TROLLEY

DESCRIPTION-

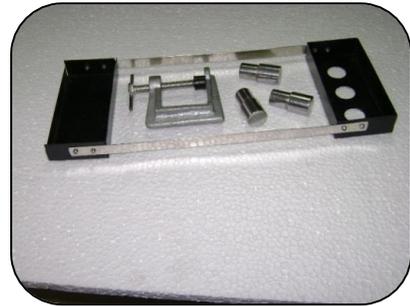
300mm long, metal reinforced at ends, having three low-loss ball bearing wheels and fitted with spring-loaded impulse rod. Rod has three positions to provide different impulses and is triggered by a release pin.

With removable metal pins at each end to enable trolleys or masses to be stacked or to provide anchoring points for accelerating cords. Pair, Approximately weight of each trolley 1kg.



RLP366-INERTIA BALANCE

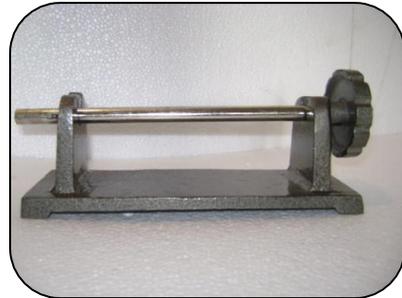
DESCRIPTION-Comprises two metal trays. 130 x 55 x 23 mm joined together by a pair of spring steel strips 10mm wide, the distance between the trays being 215 mm. One tray is drilled to hold three equal cylindrical masses. The other tray acts as an anchorage and may be clamped to the bench either horizontally or vertically. Complete with three masses and a 'G' clamp for mounting. Dimensions 325 x 130 x 23 mm overall.



RLP367-BAR BREAKING APPARATUS

DESCRIPTION-

To show force of contraction or expansion. A heavy cast iron base. On one end of which is fitted a hand nut the other drilled with holes to carry a cast iron rod of 75 x 6 mm size bearing against narrow flats, overall size 330 x 60 x 60 mm



RLP368-MICROMETER SLIT

DESCRIPTION-

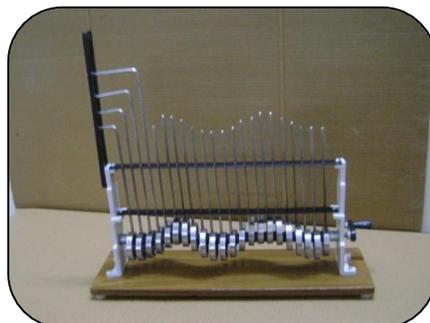
The micrometer slit has a heavier screw thread, 0.5 mm pitch x 6 mm dia, carrying a drum which is divided into fifty divisions giving a reading of 0.01 mm. An index is provided with a 5 mm scale divided in 0.5 mm divisions.



RLP369-WAVE MOTION APPARATUS

DESCRIPTION-

For demonstrating longitudinal and transverse motion , consisting of 18 centric Aluminium discs supporting a series of metal rods. On revolving the handle, transverse waves are obtained with bent. Straight rods, complete on wooden box.



RLP370-BOYLE'S LAW APPARATUS PRESSURE GAUGE TYPE

DESCRIPTION-

A wide bore glass tube is mounted vertically in front of a scale graduated 0 to 60 cm. Zero corresponds to the inside of the closed(top) end of the tube. Air is confined in the tube by a coloured oil contained in a metal pressure chamber which is fitted with a bourdon type gauge calibrated 0 to 50 lbs/In² & 3.5 Kg/cm² actual pressure. A valve is fitted to the air inlet tube from the pump. As the pressure in the oil chamber is increased oil in its actual (total) pressure is directly indicated. The tube is of extra strong glass and plastic safety screen is secured is fitted on front. Overall height of apparatus is 690 mm approx.



RLP371-SMOKE CELL

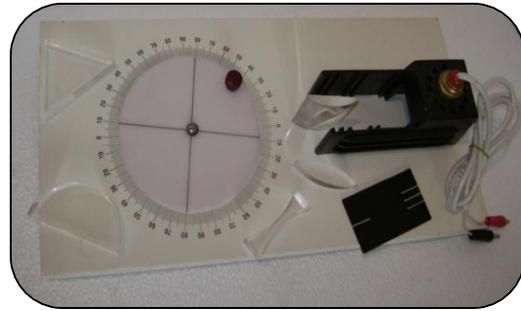
DESCRIPTION-

For demonstrating Brownian motion. Designed for use with a microscope. A short cylindrical cell, closed by a cover glass, is held vertically in an opaque channel. 90 x 90 x 30 mm. Illumination is by an integral filament bulb and cylindrical glass lens. The cell enables Brownian motion to be observed for at least 15 minutes after charging the cell with smoke fitted 4 mm socket terminals for connection 12 V supply.

RLP372-RAY TRACK APPARATUS

DESCRIPTION-

A compact visual teaching aid which is robust in construction wood board 400 x 280 x 13 mm with matt white surface, mounted on rubber feet carries a circular scale with four quadrants 0-90 degree graduated every 2 degree, with two lines at right angles. The ray box is provided with slots to accommodate metal slits, colour filters, lenses etc. and is fitted with a 12 V 24 W line filament.



RLP373-BOURDON GAUGE

DESCRIPTION-

A circular gauge having an overall diameter of 100 mm and a depth of 40 mm. The dial reads 0 to 50 lbs/in² x 1 & 0 to 3.5 Kg/cm² x 1 actual (total) pressure and the case has a clear Perspex so that the working parts may be seen

RLP374-OPTICAL DISK

DESCRIPTION-

500 mm, diameter, steel, disk is faced with matt white. It is marked every 5 degree, with extended lines every 10 degree and 30 degree, cross lines mark the centre. The disc is mounted on a 25 mm diameter steel tube 390 mm long which fits into a stable base with levelling feet. The disk rotates about its centre and can be locked in any desired position. The lamp house holds a 12 V, 24 watt axial filament lamp. This lamp house is covered by a rotatable outer shield that has various slots. By rotating the shield light beams of varying width can be provided as well as narrow single, double and triple beams. Attached to the lamp house is an adjustable lens carrier with lens to provide diverging, parallel or converging light beams. The lamp house is mounted on a rotatable arm that can be locked in any position. A Sliding weight on the arm act as a counterpoise. All optical elements are supplied



RLP375-METAL BLOCK CALORIMETERS

DESCRIPTION-

For the experimental determination of the specific heat capacity of different metals. Cylindrical metal block, mass 1 kg. Adjusted to an accuracy of $\pm 2\%$. Each block is drilled with two holes, a large central hole, 12.5 mm diameter, for a special immersion heater and a smaller hole, 7.5mm diameter, for a thermometer



RLP376-RESISTANCE BOX PLUG TYPE

DESCRIPTION-

Accurately calibrated Resistance Coils are enclosed in a teak wood polished case with Heavy Bakelite top and rectangular brass blocks.

- A. 0.1-1 Ω & 0-10 Ω
- B. 0.1-5 Ω & 1-50 Ω
- C. 0.1-10 Ω & 1-100 Ω
- D. 0.1-50 Ω & 1-500 Ω
- E. 0.1-100 Ω & 1-1000 Ω
- F. 0.1-500 Ω & 1-5000 Ω
- G. 0.1-1000 Ω & 1-10000 Ω

RLP377-RHEOSTATS

DESCRIPTION-

Slide wire rheostats are in a variety of resistance & different current carrying capacities



	LENGTHS	15cm	20cm m	25cm	30cm	35cm
	AMPS	Ω	Ω	Ω	Ω	Ω
A	8.0	1.5	2.5	3.5	4.5	5.5
B	6.5	3.0	4.5	6.0	7.5	9.0
C	5.0	4.5	6.5	8.5	10.5	12.5
D	4.2	8	12	16	20	24
E	3.3	10	16	22	28	34