

- ⇒ **Applied mechanics lab equipments**
- ⇒ **Engineering models**
- ⇒ **Civil engineering models**
- ⇒ **Object drawing models**
- ⇒ **Automobile lab equipments**
- ⇒ **Construction machine lab equipments**
- ⇒ **Heat engine lab equipments**
- ⇒ **Hydraulic/fluid mech. Lab equipments**
- ⇒ **Heat transfer lab equipments**
- ⇒ **Mass transfer lab equipments**
- ⇒ **Momentum transfer lab equipments**
- ⇒ **Refrig. & air cond. Lab equipments**
- ⇒ **Theory of machines lab equipments**
- ⇒ **Thermodynamics lab equipments**

❖ **Applied mechanics lab equipments**

1. Universal Force Table (Superior) with Brass Slotted Weights & Brass Pulleys.
 2. Universal Force Table (Normal) with Iron Slotted Weights & Aluminium Pulleys.
 3. Link Polygon Apparatus without Weights.
 4. Apparatus to Study Equilibrium of Non Concurrent Forces with Iron Slotted Weights.
 5. Parallelogram of Forces Apparatus with Iron Slotted Weights.
 6. Polygon of Forces Apparatus with Iron Conical Weights & Pan.
 7. Triangle & Parallelogram of Forces Apparatus with Iron Slotted Weights.
 8. Polygon & Triangle of Forces Apparatus with Iron Slotted Weights.
 9. Polygon of Forces Apparatus with Iron Slotted Weights & Pans.
 10. Law of Conservation of Mass Apparatus without Weights
- (a) To Verify The Law of Forces in Two Dimensions
- (b) To Verify The Law of Forces in Three Dimensions
11. Parallel Forces Apparatus (Tubular Spring Balance) with 1 Kg Iron Conical Weights 2 Pc.
 12. Parallel Forces Apparatus (Dial Type Balance) with 1 Kg Iron Conical Weights 2 Pc.
 13. Parallel Forces Apparatus (Overhang Beam Type) with 1 Kg Iron Conical Weights 2 Pc.
 14. Apparatus for Reaction of Forces in Beam Dial Type Balance 20 Kg with Iron Conical Weights.
 15. Bell Crank Lever on Angle Iron Base with Weights.
 16. Bell Crank Lever on Wooden Base without Weights.
 17. Compound Lever (with Weights).

18. Cranked Compounded Lever (with Weights).
19. Lever Apparatus (with Weights).
20. Moments Disc Apparatus (without Weights).
21. Law of Moments Apparatus (without Weights).
22. Cantilever Beam Apparatus.
- 23. Structural Mechanics Apparatus (Complete Set)**
 - (a) Single Cantilever
 - (b) Cantilever with Four Members
 - (c) Simple Roof Truss
 - (d) Roof Truss with Angled Tie Rods
 - (e) A Composite Frame Work
 - (f) King Post Roof Truss
 - (g) Standard Roof Truss
 - (h) Roof Truss with Loads or Standard Roof Truss
 - (i) Mansard Roof Truss
 - (j) Island Roof Truss
 - (k) N Type Girder
 - (l) Warren Girder
 - (m) Framed Arc
 - (n) North Light Roof Truss.
 24. Jointed Roof Truss on Wheels (without Weights).
 25. Shear Legs Apparatus (without Weights).
 26. Simple Jib Crane (without Weights).
 27. Jib Crane with Iron Base & Tubular Type Compression Balance (with Weights).
 28. Geared Jib Crane (without Weights).
 29. Friction Slide Apparatus (without Weights)
 - (a) Superior Quality
 - (b) Normal Quality
 30. Inclined Plane Normal Quality (without Weights).
 31. Inclined Plane Superior Quality (without Weights).
 32. Combined Inclined Plane & Friction Slide Apparatus.
 33. (a) with Wooden Base & without Weights.
 34. (b) with Angle Iron Base & with Weights.
 35. Coil Friction Apparatus (without Weights).
 36. Combined Coil & Flat Belt Friction Apparatus (without Weights).
 37. Combined Coil & 'V' Belt Friction Apparatus (without Weights).
 38. Combined Coil, Flat & 'V' Belt Friction Apparatus without Weights).
 39. Rope Brake & Dynamometer (with Weights).
 40. Prony Brake Dynamometer (with Weights).
 41. Pulley Blocks Brass, 8 cm Dia & 6 mm Grove.
 - (a) Single
 - (b) Double
 - (c) Triple
 42. Pulley Blocks Brass, 5 cm Dia & 6 mm Grove.
 - (a) Single

- (b) Double
- (c) Triple
- 43. Pulley Blocks Aluminium, 8 cm Dia & 2 cm Grove
- (a) Single
- (b) Double
- (c) Triple
- 44. Pulley Blocks Aluminium, 8 cm Dia & 1 cm Grove
- (a) Single
- (b) Double
- (c) Triple
- 45. Double Shave Pulley Block (with Weights).
- 46. Differential Pulley Block Model (without Weights).
- 47. Pulley Demonstration Set (with Weights).
- 48. Pulley System Different Type (without Weights)
- (a) First System Pulleys
- (b) Second System Pulleys
- (c) Third System Pulleys
- (d) Frame for Above
- 49. Chain Pulley Blocks (without Weights)
- (a) Worm Gear Type (1 Ton)
- (b) Spur Gear Box Type (1 Ton)
- (c) Weston's Differential, Triple Purchase (1 Ton)
- 50. Compound Wheel & Axle 35 cm Dia (without Weights).
- 51. Wheel & Differential Axle 30 cm Dia (without Weights).
- 52. Wheel & Differential Axle 20 cm Dia (without Weights).
- 53. Wheel & Axle Simple Wooden (without Weights).
- 54. Winch Crab Single Purchase (without Weights).
- 55. Winch Crab Double Purchase (without Weights).
- 56. Worm & Worm Wheel (without Weights)
- (a) Single
- (b) Double
- (c) Triple
- 57. Worm & Worm Wheel Small (without Weights).
- 58. Apparatus to Find The Personal of a Man.Screw Efficiency Apparatus (without Weights).
- 59. Screw Jack (without Weights).
- 60. Screw Jack Small Size (without Weights).
- 61. Compound Screw Jack (without Weights).
- 62. Compound Screw Jack with Transverse Motion (without Weights).
- 63. Deflection of Beam Apparatus (without Weights).
- 64. Bending of Beam Apparatus (without Weights).
- 65. Elasticity of Flexure Apparatus (without Weights).
- 66. Shear Force Apparatus (with Weights).
- 67. Bending Moment Apparatus (with Weights).
- 68. Stresses in Beam Apparatus (with Weights).
- 69. Compression of Coiled Springs (without Weights).

70. The Combined Compression & Extension of Springs Apparatus (without Weights).
71. Hook's Law Apparatus (with Weights).
72. Young's Modulus Apparatus Searl's Pattern with Brass Frame (without Weights).
73. Young's Modulus Apparatus Vernier Type (without Weights).
74. Young's Modulus of a Metal Rod By An Interference Method (without Weights).
75. Rigidity of Wires with Stand.
76. Maxwell Vibration Needle.
77. Torsion Apparatus Clamp Pattern (without Weights).
78. Torsion Apparatus Searle's Type (without Weights).
79. Torsion Apparatus Vertical Type (without Weights).
80. Second Law of Motion Apparatus.
81. Simple Pendulum.
82. Bar Pendulum or Compound Pendulum.
83. Kater's of Reversible Pendulum.
84. Moment of Inertia of Flywheel (without Weights)

- (a) 15 cm Dia
- (b) 20 cm Dia
- (c) 25 cm Dia
- (d) 30 cm Dia

85. Moment of Inertia of (without Weights).

- (a) 37 cm Dia
- (b) 45 cm Dia

86. Fletcher Trolley (Complete with Weights).

87. Atwood Machine (Complete with Weights).

Stop Watch

- (a) Digital
- (b) Mechanical

88. Apparatus to find Center of Gravity.

89. Centrifugal Force Apparatus

❖ **Engineering models**

1. Single Stage Spur Gears.
2. Single Stage Spur Gears with Intermediate.
3. Two Stage Spur Gears.
4. Three Stage Spur Gears.
5. Single Stage Bevel Gears.
6. Single Stage Helical Gears.
7. Single Stage Spiral Gears.

Gear Sets

- (a) Set of Herringbone Gears

- (a) Big
- (b) Small

8. Internal Gear Pinion Drive.

9. Rack & Quadrant Gears.
10. Sliding Wedge Gear with Straight Line.
11. Rack & Pinion.
12. Epicycle Gear.
13. Epicyclic Gear (Sun & Planet Type).
14. Cycloidal Gear.
15. Reversing Gears.
16. Worm Gears.
17. Train of Gear Wheels
- (a) Simple
- (b) Compound
 18. Differential Gear.
 19. Inter Connected Gears.
 20. Gear Box (Speed & Reverse Gear)
- (a) Without Clutch
- (b) With Clutch
 21. Shaper Model

❖ MECHANISM MODELS

1. Friction Wheel Drive.
2. Chain Drive.
3. Pawl & Ratchet Motion.
4. Crank & Connecting Rod Model.
5. Slide Crank Mechanism
- (a) Reciprocating Engine Mechanism
- (b) Oscillating Cylinder Mechanism
- (c) Witworth Quick Return Mechanism
 6. Slide Crank Mechanism with Caliberated Dials
- (a) Reciprocating Engine Mechanism
- (b) Oscillating Cylinder Mechanism
- (c) Witworth Quick Return Mechanism
 7. Four Bar Link Mechanism.
 8. Scotch Yoke Mechanism.
 9. Ellipse Tracer Model.
 10. Watt's Mechanism.
 11. Peculiar Linkage Drive Model.
 12. Pantograph Mechanism.
 13. Kinematic Pairs.
 14. Crank Shaft to Slider Mechanism.
 15. Crank & Slotted Link Mechanism.
 16. Two Crank Linkage Drive Model.
 17. Slotted Link Bar Mechanism.
 18. Inversion of Four Bar Mechanism.
 19. Crank Drive to Oscillating Link Mechanism.
 20. Crank & Slotted Lever Apparatus (Fully Caliberated).
 21. Inversion of Single Slide Crank Mechanism.

22. Inversion of Double Slide Crank Mechanism

❖ CAM & FOLLOWER MODELS

1. Cams & Followers Set of
 - (a) Plate Cam(with Flat Faced Reciprocating Follower)
 - (b) Tangent Cam (with Roller Oscillating Follower)
 - (c) Cylindrical Cam (with Translating Follower)
 - (d) Translating cam (with Reciprocating Knife Edge Follower)
 - (e) End Cam (with Translating Follower)
2. Action of Cams.
3. Triangular Eccentric Cam.
4. Tri Clover Leaf Cam.
5. Harmonic Motion (Simple Type).
6. Harmonic Motion.

❖ BRAKE MODELS

1. Single Shoe Brake
2. Double Shoe Brake
3. Band Brake
4. Band & Block Brake
5. Internally Expanding Brake
6. Disc Brake Model
7. Disc Brake Actual Working
8. Hydraulic Brake Unit
9. Hydraulic Brake Unit (Two Brake Drums)
10. (Hydraulic Brake Unit (Four Brake Drums)
11. Mechanical Brake System
12. Power Brake Actual Working
13. Air Brake Actual Working

❖ BELT PULLEY MODELS

1. Model of Belt Pulleys.
 - (a) Flat Belt Pulley.
 - (b) Rope Pulley.
 - (c) "V" Belt Pulley.
 - (d) Cone or Step Pulley.
2. Belt Drive Single Speed.
3. Belt Drive Two Stage.
4. Belt Drive Lose & Fast.

❖ BEARING MODELS

1. Shafting General
Bearing

- (a) Open Truck Bearing
- (b) Simple Bearing
- (c) Bush Bearing
- (d) Thrust Bearing
- (e) Plummer Block or Pedestal Bearing
- (f) Foot Step Bearing

2.

Bearings

- (a) Ball Bearings
- (b) Roller Bearings
- (c) Taper Bearings
- (d) Thrust Bearings

3.

Ball Bearings Set.

4.

Swivel Bearings.

5.

Hanger Brackets.

6.

Wall Brackets.

❖ KEY & JOINTS MODELS

- 1. Keys (Set of)
- 2. Knuckle Joint
- 3. Cotter Joint
- 4. Gib & Cotter Joint
- 5. Tie Rod Joint
- 6. Sleeve & Cotter Joint
- 7. Socket & Spigot Joint
- 8. Riveted Joints Set of Four (Wooden Models)
- 9. Riveted Joints (Wooden Models)
- (a) Riveted Joints Triple
- (b) Riveted Joints Quadruple
- (c) Riveted Joints Angle Iron & Girder Joints
 - 10. Rivets Set of Four (Metal Model)
 - 11. Rolled Sectional Models Set of Four (Wooden)`
 - 12. Girder Models (Wooden)
- (a) Plate Girder
- (b) Box Girder
- (c) N. Girder

❖ COUPLING MODELS

- 1. Sellers Coupling
- 2. Universal Coupling
- 3. Hook's Coupling
- 4. Hook's Coupling (Double)
- 5. Double Hook's Coupling Experimental Apparatus
- 6. Flexible Coupling
- 7. Box or Muff Coupling
- 8. Flanged Coupling

9. Split Muff Coupling
 10. Oldham's Coupling
- (a) Small
(b) Big

❖ **CLUTCH MODELS**

1. Claw Clutch
2. Conical Friction Clutch
3. Plate Clutch
4. Centrifugal Clutch
5. Multiplate Clutch

❖ **SCREW & NUT MODELS**

1. Hemispherical Sectional Models of Screw Threads
2. Hemispherical Sectional Models of Screw Threads Nuts
3. Standard Bolt
4. Bolts of Four Types
5. Foundation Bolts
6. Foundation Bolts with Nomenclature
7. Locking Arrangement of Bolts

❖ **GYROSCOPE MODELS**

1. Standard Gyroscope
2. Gyroscope with Counter Poise
3. Bicycle Wheel Gyroscope
4. Revolving Stool for Above

❖ **Civil engineering models**

1. Plate Girder Bridge
2. Lattice Girder Bridge
3. Lattice Bowstring Girder Bridge
4. Road Suspension Bridge
5. Stone Arch Bridge
6. R.C.C. Deck Slab Bridge
7. R.C.C. Balanced Cantilever Bridge
8. Floating Bridge
9. T Beam Bridge
10. Lift Bridge Across A Port Channel
11. Bridge Trusses
 - (a) Plate Type
 - (b) N Type
 - (c) Warren Type
 - (d) Lattice Type
 - (e) Lattice Bowstring Type

(II) CULVERT MODELS

1. Road Culvert With Single Arch
2. Road Culvert Brick Barrel Type

3. Road Culvert Box Type
4. Road Culvert With R.C.C. Slab
5. Road Culvert Skew Type
6. Railway Culvert

(III) ROAD MODELS

1. Flyover Road Junction
 - (a) Clover Leaf Junction
 - (b) Diamond Pattern
2. Model of Cross Section of National Highway
3. Model of Sub-Surface Drainage
4. Road Signs

(IV) RAILWAY MODELS

Model of Points Crossing

Model of Inter Locking

(V) BUILDING MODELS

Grillage Foundation

Model of Foundation

Pile Driving Machine Model

Piles of Different Type

- (a) Steel Sheet Pile
- (b) Screw Pile
- (c) Timber Pile

Wing Walls

Pneumatic Caisson

Model of Bricks

Bricklayer's Scaffolding

Raking Shore

Flying Shore

Centering of Arch

Carpentry Joints

Model of Door Leaf

- (a) Fully Paneled Door
- (b) Half Paneled & Half Glazed Door
- (c) Sash Door
- (d) Lugged & Braced Door
- (e) Flush Door

Model of Doors with Surrounding Frames

- (a) Fully Paneled Door
- (b) Half Paneled & Half Glazed Door
- (c) Sash Door
- (d) Lugged & Braced Door
- (e) Flush Door

Model of Venetian Door with Surrounding Frames

Model of Windows

- (a) Louvred or Venetian Window
- (b) Double Hung Window
- (c) Sliding Window
- (d) Casement Window
- (e) Awning Window
- (f) Hopper Window
- (g) Bay Window

Corner Window Lintel

Model of Stair Cases

- (a) Dog Legged Stairs
- (b) Open Well Stairs
- (c) Quarter Turn Stairs
- (d) Bifurcated Stairs
- (e) Geometrical Stairs

Spiral Stairs

Lean to Roof Model

Collar Beam Truss Model

King Post Truss Model

Queen Post Truss Model

Joints of Trusses

Model of Steel Roof Truss

Model of Roof Showing Ridge Hip & Valley

Model of Partition Wall

Model of Jack Arch Flooring

T Beam & Slab Reinforcement

Two Rooms & Verandah

Two Storied Building

(VI) IRRIGATION MODELS

Model of Cofferdam

Gravity Dam

River Head Work

Gibb's Module

Saddle Siphon Spillway

Spill Way Gate
Volute Syphon Spillway
Level Crossing
Viswewaraya Gate
Tank Sluice with Plug & Cistern
Tank Sluice with Tower Head
Tank Weir
Suppressed Weir
Sluice Gate
Canal Intake
Model of Canal Drop
Model of Slit Ejector
Model of Canal Regulator
Fish ladder
Model of an Aqueduct
Syphon Aqueduct
Super Passage of Two Span

(VII) PUBLIC HEALTH MODELS

Model of Slow Filter
Model of Rapid Sand Filter
Model of Pressure Filter
Safe Water Supply From a Pond
Safe Water Supply From a River
Sedimentation Tank
Flocculator
Trickling Filter
Indian Type Water Closet
Septic Tank
Imhoff Tank
Automatic Flushing Tank
Alum Jar Test Apparatus Electrically Operated

Object drawing models

Object Drawing Models Dissected

- (a) Rectangular Prism
- (b) Rectangular Pyramid
- (c) Triangular Prism
- (d) Triangular Pyramid
- (e) Square Prism
- (f) Square Pyramid
- (g) Pentagonal Prism

- (h) Pentagonal Pyramid
- (i) Hexagonal Prism
- (j) Hexagonal Pyramid
- (k) Octagonal Prism
- (l) Octagonal Pyramid
- (m) Decagonal Prism
- (n) Decagonal Pyramid
- (o) Cube x cm
- (p) Cone
- (q) Cone Cut in Four Sections
- (r) Sphere cm
- (s) Cylinder

Object Drawing Models Non-Dissected

- (a) Rectangular Prism
- (b) Rectangular Pyramid
- (c) Triangular Prism
- (d) Triangular Pyramid
- (e) Square Prism
- (f) Square Pyramid
- (g) Pentagonal Prism
- (h) Pentagonal Pyramid
- (i) Hexagonal Prism
- (j) Hexagonal Pyramid
- (k) Octagonal Prism
- (l) Octagonal Pyramid
- (m) Decagonal Prism
- (n) Decagonal Pyramid
- (o) Cube x cm
- (p) Skeleton Cube x cm
- (q) Cone
- (r) Sphere cm
- (s) Half Sphere
- (t) Cylinder
- (u) Semi-Cylinder
- (v) Quarter-Cylinder
- (w) Tetrahedron
- (x) Octahedron
- (y) Circle
- (z) Double Cross
- (z) Single Cross
- (z) Model Plates (Set of)

Models of Dissected Solids (Set of)

- (a) Cube Cut in Two Right Angles
- (b) Sphere cm Dia Cut in Two Hemispheres
- (c) Cylinder Cut in Two Semi-Cylinders
- (d) Cone Cut at an Oblique Angle
- (e) Pyramid Triangular Cut in Two Parts
- (f) Triangular Prism Cut in Two Parts Parallel to Base
- (g) Tetrahedron Having Each Side cm & Cut in Two Parts Parallel to Base
- (h) Parallelepiped Dissectable in Two Triangular Prisms

Cube Dissected

Geometrical Model Kit Set of Wooden Models in Wooden Box

A Set of Wooden Models on Interpenetration of Solids

- (a) Two Cylinders of Different Diameters Penetrating Each Other at Right Angles
- (b) Two Cylinders of Different Diameters with Oblique Penetration
- (c) A Cylinder into a Cone with Oblique Penetration
- (d) A Cone & Cylinder with Penetration at Right Angles
- (e) Two Cones at Right Angles
- (f) Two Square Prisms of Different Sizes at Right Angles
- (g) Two Square Prisms at Oblique Angles
- (h) Sphere & Cone at Centre
- (i) Sphere & Cylinder Eccentric
- (j) Sphere & Cylinder at Centre
- (k) Binomial Cube
- (l) Cubic Decimeter
- (M) Slide Rule

Slide Rule Model

Geometrical Instrument Box (Wooden)

Geometrical Instruments Box (Plastic)

Projection of Straight Line Apparatus

Automobile lab equipments

Car Engine

- (a) Car Engine Petrol : Handle Driven
- (b) Car Engine Petrol : Motor Driven
(Fitted with F.H.P. Volts A.C. Motor)

Car Engine Diesel

(a) Car Engine Diesel : Handle Driven

(b) Car Engine Diesel : Motor Driven

(Fitted with F.H.P. Volts A.C. Motor)

EDUCATIONAL CHASIS

Demonstration Car Chasis

Educational Car Model

(a) Educational Car Model : Handle Driven

(b) Educational Car Model : Motor Driven

(Fitted with F.H.P. Volts A.C. Motor)

(c) Show Case for Above

Made of Wooden Frame with Acrylic Sheet Fitted

ELECTRICAL EQUIPMENT BOARDS OF AUTOMOBILE

Mock Layout of Car Wiring

Mock Layout of Tractor Wiring

Electronic Ignition System of an Automobile

Coil Ignition System of an Automobile

FUEL SUPPLY SYSTEMS OF AUTOMOBILE

Fuel Supply System of a Petrol Engine

Fuel Supply System of a Diesel Engine

Fuel Supply System of a Cylinder Diesel Engine

MISCELLANEOUS PRODUCTS

Automobile Stethoscope

Fully Automatic Battery Charger

Battery Cell Tester

Battery Hydrometer

Lubrication System of an Automobile

Cooling System of an Automobile (with Actual Parts)

MODELS OF STEERING

Working Model of Car Steering

Working Model of Tractor's Steering

Actual Cut Section Car Steering Unit

Actual Working Model of Power Steering of Car

GEAR BOX MODELS

Model of Gear Box : Forward & Reverse

(a) Model of Gear Box

(b) Model of Gear Box with Clutch

Actual Cut Section Gear Box :

(Forward & Reverse)

(a) Actual Cut Section Gear Box Model

(b) Actual Cut Section Gear Box Model with Clutch

Actual Cut Section Gear Box Car (Constant Mesh)

Actual Cut Section Gear Box Jeep (Synchronic Mesh)

Actual Cut Section Automatic Gear Box Car (internal Gear)

DIFFERENTIAL GEAR MODELS

Demonstration Tractor Differential (Working Model)

Demonstration Differential Gear (Working Model)

Differential Gear Assembly (Actual Cut Section)

Rear Axial Assembly (Actual Cut Section)

WORKING MODELS OF DIFFERENT BRAKES

Band Brake

Band & Block Brake

Single Shoe Brake

Double Shoe Brake

Internally Expanding Brake

Disc Brake

(a) Disc Brake Model

(b) Disc Brake Actual Working

Hydraulic Brake Unit

Hydraulic Brake Unit (Two Brake Drums)

Hydraulic Brake Unit (Four Brake Drums)

Mechanical Brake System

Power Brake (Actual Working)

Air Brake (Actual Working)

ACTUAL CUT SECTION CARBURETORS & AUTOMOBILE PARTS

Carburetors

(a) Maruti Car Type

(b) S.U. Type

- (c) Solex Type
- (d) Carter Type

Automobile Parts

- (a) Self Starter
- (b) Generator
- (c) Distributor
- (d) Ignition Coil
- (e) Spark Plug
- (f) Magneto
- (g) Electrical Fuel Pump
- (h) Mechanical Fuel Pump
- (i) Master Cylinder
- (j) Brake Cylinder
- (k) Gear Lubricating Pump
- (l) Water Pump or Water Body
- (m) Radiator
- (n) Crank Shaft
- (o) Cam Shaft
- (p) Connecting Rod
- (q) Piston with Rings
- (r) I.C. Injector
- (s) Speedometer
- (t) Shock Absorber

ACTUAL CUT SECTION ENGINES

Stroke Cylinder Vertical Diesel Engine

Stroke Cylinder Scooter Engine

Stroke Cylinder Motor Cycle Engine

Stroke Cylinder Motor Cycle Engine

WORKING MODEL ENGINES

Sectional Working Model of Stroke Petrol Engine

Sectional Working Model of Stroke Petrol Engine

Sectional Working Model of Stroke Diesel Engine

Sectional Working Model of Stroke Diesel Engine

Gas Turbines or Turbojet Engine

Ram Jet Engine

Wankel Engine

MODELS OF DIFFERENT CLUTCHES

Claw Clutch

Conical Friction Clutch

Plate Clutch

Centrifugal Clutch

Multiplate Clutch

Construction machine lab equipments

Blast Furnace

Blast Furnace (Smaller & Economical Size)

Open Hearth Furnace

Bessemer Convertor

Electric Arc Furnace

Cupola

Hoffman's Kiln

Model of Ammonia Ice Plant

Model of Refrigerator

Working Model of Dumper

Working Model of Bucket Trencher

Working Model of Crawler Crane

Road Roller

Bulldozer Model

Working Model of Scraper

Working Model of Belt Conveyor

Working Model of Bucket Conveyor

Working Model of Chain Conveyor

Working Model of Screw Conveyor

Model of Cooling Tower

Heat engine lab equipments

BOILER MODELS

Lancashire Boiler

Cornish Boiler

Babcock & Wilcox Boiler

Locomotive Boiler

Cochran Boiler

Vertical Water Tube Boiler

Lamount Boiler

Benson Boiler

Loeffler Boiler

Valox Boiler

Marcet Boiler

Stirling Boiler

Nestler Boiler

MOUNTINGS & ACCESSORIES OF STEAM BOILERS

Lever Safety Valve

Spring Loaded Safety Valve

Dead Weight Safety Valve

Combined High Steam & Low Water Safety Valve

Water Gauge Model

Stop Valve Hopkinson Type

Feed Check Valve

Steam Injector

Pressure Gauge

Blow Off Cock

Reducing Valve

Fusible Plugs

Anti Priming Pipe

Expansion Steam Trap

Float Steam Trap

Green Economiser

Sudgen Super Heater

STEAM ENGINE MODELS

Model of Steam Engine

Steam Engine Model with a Boiler

Steam Engine 'D' Slide Valve

Model of Piston Valve Steam Engine

Model of Compound Steam Engine

Model of Uniflow Steam Engine

Model of Drop Valve Steam Engine

Model of Mayer Expansion Valve Steam Engine

Model of Corlis Valve Steam Engine

Stephenson Link Motion

Gooch Link Motion

Allan Link Motion

Joy Valve Gear

Walscharet Valve Gear

GOVERNOR MODELS

Watts Governor

(a) Ordinary

(b) Early

(c) Cross Arm

Governor Model

(a) Loaded

(b) Porter

(c) Hartnell

Rotating Arrangement

Governor Models (Complete Set)

Throttle Valve

Eccentric Model

Stuffing Box

Cross Head

SECTIONAL WORKING MODELS OF PETROL & DIESEL ENGINE

Sectional Working Model of 2 Stroke Petrol Engine

Sectional Working Model of 4 Stroke Petrol Engine

Sectional Working Model of 2 Stroke Diesel Engine

Sectional Working Model of 4 Stroke Diesel Engine

Gas Turbines or Turbojet Engine

Ram Jet Engine

Wankel Engine

STEAM TURBINE MODELS

De-Lavel Turbine (Velocity Compounded)

De-Lavel Turbine with Transparent Window (Velocity Compounded)

Pressure & Velocity Compounded Steam Turbine

Air or Steam Pressure Steam Turbine (Pressure Compounded)

Pure Reaction Steam Turbine (Hero's)

STEAM CONDENSOR MODELS

Jet Condensor - Parallel Flow

Jet Condensor - Counter Flow

Surface Condensor

Evaporative Condensor

Ejector Condensor

Air Pre Heater

Hydraulic/fluid mech. Lab equipments

HYDRAULICS & FLUID MECHANICS LAB EQUIPMENTS (OPEN CIRCUIT)

VARIOUS HYDRAULIC EXPERIMENTS

Product

Apparatus for Verification of Bernoulli's Theorem
Complete with Collecting Tank

Metacentric Height Apparatus Complete with
Collecting Tank

Forces of Jet Apparatus

Reynold's Apparatus Complete with Collecting Tank

Determination of Critical Velocity Complete with all Accessories

- (a) Determination of Critical Velocity Apparatus
- (b) Collection Tank
- (c) Differential Manometer (One Meter Long)

To Determine Losses in pipe Line Due to Sudden Enlargement, Contraction etc.

- (a) Apparatus to Determine Losses in Pipe Line Due to Sudden Enlargement, Contraction etc.
- (b) Collecting Tank
- (c) Differential Manometer (One Meter Long)

Determination of C_D , C_V & C_C Orifices Complete with all Accessories

- (a) Determination of C_D , C_V & C_C Orifices Apparatus
- (b) Stand for the Apparatus
- (c) Scale & Sliding Attachment
- (d) Collecting Tank

Apparatus for Determination of Discharge & Coefficient of Discharge of Notches
Complete with all Accessories

- (a) Set of 10 Triangular & Rectangular Notch Plates
- (b) Collecting Tank

Collection Tank with Two Compartments

HOOK GAUGES

Hook Gauge or Pointer Gauge (Rack & Pinion Type)

- (a) 7.5 cm

- (b) 15 cm
- (c) 30 cm
- (d) 40 cm
- (e) 45 cm
- (f) 50 cm
- (g) 60 cm
- (i) 100 cm

Hook Gauge Brass (Scale & Vernier Type)

- (a) 7.5 cm
- (b) 15 cm
- (c) 30 cm
- (d) 45 cm

Micrometer Contraction Gauge

VENTURIMETERS & ORIFICE METERS

Venturimeters (Cast Iron)

- (a) 25 mm
- (b) 38 mm
- (c) 50 mm

Venturimeters (Brass)

- (a) 25 mm
- (b) 38 mm
- (c) 50 mm

Orifice Meter (Cast Iron Body Brass Plates)

- (a) 25 mm
- (b) 38 mm
- (c) 50 mm

MANOMETERS

Pitot Tube

U Tube Double Column Manometer

- (a) 15 cm
- (b) 25 cm
- (c) 50 cm
- (d) 100 cm

Differential Manometer 50 cm Scale

Inclined Tube Manometer 50 cm Scale

Inclined Manometer 20-0-20 cm

Demonstration Manometer 50 cm

Piezometer Tube (One Meter Long)

Differential Manometer (One Meter Long)

VALVES

Hydraulic Non Return Valve

Gate Valve

Globe Valve

TURBINES & PUMPS

Different Impellers of Pumps & Turbines

(a) Mixed Flow Runner Cast Aluminium 180 mm in Dia

(b) Axial Flow Runner Cast Aluminium 180 mm in Dia

(c) Radial or Centrifugal Runner Cast Aluminium 180 mm in Dia

(d) Kaplan Runner Cast Aluminium 170 mm in Dia

(e) Francis Runner Cast Aluminium 180 mm in Dia

(f) Domestic Self Pumping Runner of Brass 100 mm in Dia

(g) Centrifugal Runner Actual Cast Iron

(h) Pelton Wheel Runner Cast Aluminium 300 mm in Dia

Different Impellers of Pumps & Turbines 70 x 85 cm

Display Board for Pipes

Hydraulic Jack

Hydraulic Elevator

Hydraulic Press Model

Hydraulic Ram

Pelton Turbine

Pelton Turbine (with Dynamometer)

De-Level Turbine

De-Level Turbine (Transparent Window)

Kaplan Turbine (Superior)

Kaplan Turbine (Normal)

Francis Turbine

Impulses Turbine
Water Wheel
Air or Steam Pressure Turbine
Pure Reaction Turbine
Radial Turbine Pump
Gear Pump Model
Rotary Pump
Rotary Pump (Large Size)
Centrifugal Pump (Actual Cut Section)
Centrifugal Pump (Model)
Water Pump
Reciprocating Pump
Model of Air Lift Pump
Pendulum Pump
Archimedean Screw
Tubewell Model
Deepwell Turbine Pump
Submersible Pump
Model of Direct Rotary Rig
Hydro Electric Power Installation

HYDRAULICS & FLUID MECHANICS LAB EQUIPMENTS (CLOSED CIRCUIT)

Bernoulli's Theorem Apparatus
Flow Through Orifice & Mouthpiece

Discharge Over Notches
Impact of Jet on Vanes
Losses Due to Friction in Pipelines
Losses Due to Pipe Fittings, Sudden Enlargement & Contraction
Discharge Through Venturimeter & Orificemeter
Reynold's Apparatus
Pitot Tube Setup
Cavitation Apparatus
Metacentric Height Apparatus
Forced Vortex Apparatus
Free Vortex Apparatus
Darcy's Law Apparatus
Centrifugal Pump Test Rig
Reciprocating Pump Test Rig
Gear Pump Test Rig
Submersible Pump Test Rig
Jet Pump Test Rig
Hydraulic Ram Test Rig
Pelton Wheel Turbine Test Rig
Francis Turbine Test Rig
Kaplan Turbine Test Rig
Centrifugal Blower Test Rig
Axial Fan Test Rig
Wind Tunnel
Single Stage Air Compressor Test Rig
Two Stage Air Compressor Test Rig
Centrifugal Compressor Test Rig

Rotary Compressor Test Rig

Heat transfer lab equipments

HEAT TRANSFER LAB EQUIPMENTS

Heat Transfer Through Composite Wall
Heat Transfer Through Lagged Pipe
Heat Pipe Demonstrator
Thermal Conductivity of Insulating Powder
Thermal Conductivity of Metal Rod
Thermal Conductivity of Insulating Slab
Thermal Conductivity of Liquids
Heat Transfer From a Pin-Fin
Heat Transfer in Natural Convection
Heat Transfer in Forced Convection
Stefan Boltzmann Apparatus
Emmissivity Measurement Apparatus
Dropwise & Filmwise Condensation Apparatus
Parallel Flow/Counter Flow Heat Exchanger
Shell & Tube Heat Exchanger

Mass transfer lab equipments

MASS TRANSFER LAB EQUIPMENTS

EXTRACTION

Product

Liquid-Liquid Extraction in Packed Tower
York Scheibel's Extraction Unit
Spray Tower

Solid-Liquid Extraction Unit

DISTILLATION

Bubble Cap Distillation Column

Sieve Plate Distillation Column

Packed Distillation Column

Steam Distillation Setup

ABSORPTION

Absorption in Sieve Plate Column

Absorption in Packed Bed

Absorption in Wetted Wall Column

DIFFUSION

Vapour in Air Diffusion Apparatus

Solid in Air Diffusion Apparatus

DRYING

Natural Draft Tray Dryer

Forced Draft Tray Dryer

Rotary Dryer

Fluidised Bed Dryer

CRYSTALLIZER

Batch Crystallizer

Swenson Walker Crystallizer

MISCELLANEOUS

Wetted Wall Column

Vapour Liquid Equilibrium Setup

Mass Transfer With & Without Chemical Reaction (Solid-Liquid)

Momentum transfer lab equipments

MOMENTUM TRANSFER LAB EQUIPMENTS

Pressure Drop Through Packed Bed

Hydrodynamics of Packed be

Fluidised Bed Characteristics

Flow Through Helical Coil

Drag Coefficient Apparatus

Pressure Drop in Two Phase Flow

Refrig. & air cond. Lab equipments

REFRIGERATION & AIR CONDITIONING LAB

Refrigeration Trainer

Air Conditioning Trainer

Window Air Conditioning Model

Ice Plant Trainer

Water Cooler Trainer

Desert Cooler Trainer

Water Cooling Tower Apparatus

Mechanical Heat Pump Trainer

Theory of machines lab equipments

THEORY OF MACHINES LAB

Universal Vibration Apparatus

Cam Analysis Apparatus

Whirling of Shaft Demonstrator

Static & Dynamic Balancing Apparatus

Motorised Gyroscope Apparatus

Journal Bearing Apparatus
Universal Governor Apparatus
Corioli's Component of Acceleration Apparatus
Slip & Creep Measurement Apparatus
Epicyclic Gear Train Apparatus
Lathe Tool Dynamometer
Milling Tool Dynamometer
Drilling Tool Dynamometer
Michell Tilting Pad Bearing Apparatus

Thermodynamics lab equipments

THERMODYNAMICS LAB EQUIPMENTS

ACTUAL CUT SECTION ENGINES

4 Stroke 4 Cylinder Petrol Actual Cut Section Engine Model (Hand Driven)
4 Stroke 4 Cylinder Petrol Actual Cut Section Engine Model (Motor Driven)
4 Stroke 4 Cylinder Diesel Actual Cut Section Engine Model (Hand Driven)
4 Stroke 4 Cylinder Diesel Actual Cut Section Engine Model (Motor Driven)

ACTUAL CUT SECTION CHASSIS MODEL

Rear Wheel Drive Car Chassis 4 Stroke 4 Cylinder Petrol Engine (Motor Driven)
Front Wheel Drive Car Chassis 4 Stroke 4 Cylinder Petrol Engine (Motor Driven)
Car/Jeep 4 Stroke 4 Cylinder Diesel Engine (Motor Driven)

AUTOMOBILE TEST RIGS

Single Cylinder Two Stroke Petrol Engine Test Rig
Single Cylinder Four Stroke Petrol Engine Test Rig
Multi Cylinder Four Stroke Petrol Engine Test Rig
Single Cylinder Four Stroke Water Cooled Diesel Engine Test Rig

Twin Cylinder Four Stroke Water Cooled Diesel Engine Test Rig

Multi Cylinder Four Stroke Water Cooled Diesel Engine Test Rig