



LABTEK

MECHANICAL ENGINEERING LAB EQUIPMENTS

FLUID MACHINERY LAB





Sun LabTek Equipments (I) Pvt. Ltd.
(ISO : 9001 : 2008 Certified Company)



LABTEK COVERS THE FOLLOWING LABORATORY:

- STRENGTH OF MATERIAL LAB
- THERMAL ENGINEERING LAB
- FLUID MECHANICS LAB
- DYNAMICS OF MACHINE LAB
- HEAT TRANSFER LAB
- FLUID MACHINERY LAB
- REFRIGERATION AND AIR-CONDITIONING LAB
- AUTOMOBILE ENGINEERING LAB
- APPLIED MECHANICS LAB
- CAM LAB
- M & I LAB
- DATA ACQUISITION LAB
- MECHATRONICS LAB

The company lays special emphasis on export of its products all over the world, hence has a correct knowhow of resending product and its instruction manual in printed and soft format accepted internationally.

WELCOME TO LABTEK TECHNICAL CATALOG

Established in 1999, LabTek has built a solid reputation for manufacturing and marketing laboratory equipment with strong mechanical base required in universities, engineering colleges, polytechnics, vocational schools etc. LabTek has a selection of more than 500 mechanical engineering and 800 civil engineering equipments and test rigs. With customers spread across the globe, LabTek is regarded as premier supplier of reliable, high quality and competitively priced products. We provide Turnkey solution for establishing mechanical and civil engineering laboratory with state of the art technology and solution.

R & D & QUALITY ASSURANCE:

Our R & D Engineers work in close contacts with clients to produce user friendly products and manuals providing a fulfilling teaching and learning experience. Students can complete their assignments in single laboratory session. LabTek operates a continual product improvement process through ISO procedures and customer feedback to ensure that our product stays ahead of the competition and meets customer needs. Our product specifications are reviewed in line with worldwide curriculum to comply varied syllabus requirements and hence regularly updated and new products developed.

AFTER SALES SERVICE

Company responds to customer needs quickly and considers after sales service equally important to establish a culture of customer confidence, LabTek has established long term relationships with its clients. To expedite your order or to get any particular service, please send us an e-mail or fax with product details and your contact address along with mobile /landline numbers. Our Service Engineers will respond to you quickly through e-mail/phone. We also provide installation, commissioning and training service for any customers who require assistance.

The largest established manufacturing, trading and export house of quality Technical Education Lab Equipments in INDIA



Corporate Office: B-3A, Shiv Shakti Complex, East Vinod Nagar, 1st Floor, New Delhi-110091

Tel: 011-22732108/2109, **Fax:** 01122732109 **Customer Care No.:** +91-99999-84267

Mob: +91-99710-77233, +91-98118-88915

E-mail: labtekindia@gmail.com, **Website:** www.labtekindia.com

Works: 80-A, Rajendra Nagar Industrial Area, Sahibabad, Ghaziabad-210005, Uttar Pradesh (India)



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CERTIFICATE

Nr IN/10/100755

SUN LABTEK EQUIPMENTS INDIA PRIVATE LIMITED

B-3A, Shiv Shakti Complex, East Vinod Nagar, New Delhi-110091 (INDIA)

Scope

Manufacturing & Trading of Scientific Lab Testing Equipments.

EA 23, Code

The Quality Management System is in accordance with

SS-EN ISO 9001:2008

Excluded requirement: None

Under the assumption that the quality system and its function is satisfactory at the surveillance and that A.g.R Certification Ltd.'s "Rules for certification" are upheld.

INDIA, 11/04/2011

Issued Date

A.g.R Certification Ltd.

INDIA, 10/04/2014

Expiry Date



A.g.R Certification Ltd.
17 Hanover Square, Mayfair, London, W1S 1HU

000025, edition 3.4.5.1.1 Certificate 9001:2008



LAB & EQUIPMENTS NAME

FLUID MACHINERY LAB

Pelton Wheel Turbine Test Rig,

Francis Turbine Test Rig,

Kaplan Turbine Test Rig,

Centrifugal Pump Test Rig, H

Hydraulic Ram Test Rig,

Gear Oil Pump Test Rig,

Reciprocating Pump Test Rig,

Axial Flow Pump Test Rig



Pelton Wheel Turbine Test Rig



Francis Turbine Test Rig

CLOSED CIRCUIT PELTON WHEEL TURBINE TEST RIG 5 HP

Pelton Wheel

Type : Impulse
Capacity : 5HP
Rated Speed : 1000 RPM
Discharge Capacity: 750 Liters/Minute
Supply Head : 50 Meters
Buckets : Gun Metal

Loading

: Rope Brake
Material : Cast Iron
Drum Size : 300 mm diameter

Supply Pump Set

Size : 3 ½ X 2 ½
Discharge : 750 Liters/Minute
Motor Capacity : 15 HP, 3 Phase, 400 Volts, 50 HZ, AC
Make : CRI/Sugna/Coimbatore
Starter for Motor : Star Delta type- 3Phase TC/CROMPTON Make

Flow Measurement

Venturimeter : C.I Body
Manometer Fluid : Mercury

Pressure Measurement Pressure gauge

RPM Indicator : Digital

Sump Tank

Material of Construction : MS Powder Coating /M.S. FRP Lining/S.S Unit

Service Required : Electrical supply-15 HP, 3Phase, 440 Volts,

CLOSED CIRCUIT FRANCIS TURBINE TEST RIG 5HP

Francis Turbine

Type : Inward Flow Reaction Turbine
Capacity : 5 HP
Rated Speed : 1250 RPM
Discharge Capacity : 1800 Liters/Minute
Supply Head : 25 Meters
Guide Vanes : Gun Metal Vanes (Aerofoil Blade Shaped)

Loading

: Rope Brake
Material : Cast Iron
Drum Size : 300 mm diameter

Supply Pump Set

Size : 4" X 4"
Discharge : 1800 Liters/Minute
Total Head : 30 Meters
Motor Capacity : 15 HP
Make : CRI/Sugna/Coimbatore
Starter for Motor : Star Delta-TC/Crompton Make

Flow Measurement

Venturimeter : C.I Body
Manometer Fluid : Mercury

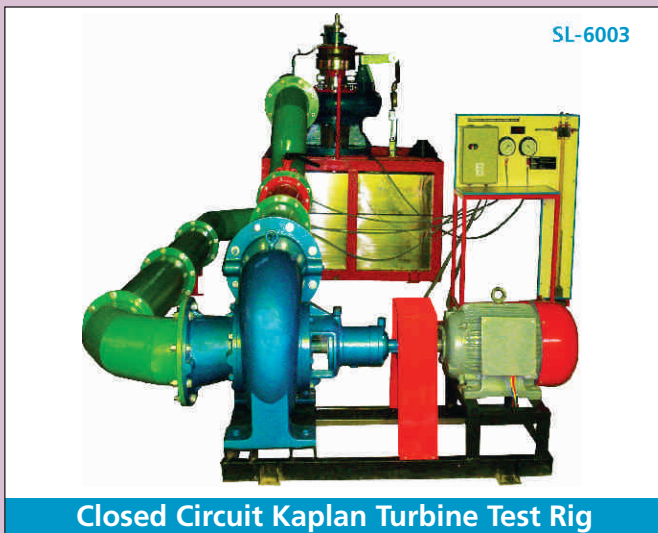
Pressure Measurement Pressure & Vacuum gauge

RPM Indicator : Digital

Sump Tank

Material of Construction : MS Powder Coating /M.S. FRP Lining/S.S Unit

Service Required : Electrical supply-15 HP, 3Phase, 440 Volts, 50HZ AC Supply



Closed Circuit Kaplan Turbine Test Rig



Centrifugal Pump Test Rig

CLOSED CIRCUIT KAPLAN TURBINE TEST RIG 5 HP

Kaplan Turbine

Type	: Axial Flow Reaction Turbine
Capacity	: 5 HP
Rated Speed	: 1500RPM
Discharge Capacity	: 4500 Liters/Minute
Supply Head	: 7 Meters
Guide Vanes	: Gun Metal Vanes (Aerofoil Blade Shaped)

Loading

	: Rope Brake
Material	: Cast Iron
Drum Size	: 300 mm diameter

Supply Pump Set

Size	: 10" X 10"
Discharge	: 5000 Liters/Minute
Total Head	: 8 Meters
Motor Capacity	: 20 HP
Starter for Motor	: Star Delta Crompton Make

Flow Measurement

Venturimeter	: C.I Body
Manometer Fluid	: Mercury

Pressure Measurement Pressure & Vacuum gauge

RPM Indicator	: Digital
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Sump Tank

Material of Construction

	: MS Powder Coating /M.S. FRP Lining/S.S Unit
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Service Required

	: Electrical supply-7.5 HP, 3Phase, 440 Volts, 50HZ AC Supply
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CLOSED CIRCUIT MULTISPEED (SINGLE STAGE) CENTRIFUGAL PUMP TEST RIG-3HP

Pump :

A Centrifugal pump of size 40mm to discharge about 250LPM at 15 total head.

Motor :

3Hp, 2880 RPM. Three phase, 400/440V, AC Supply. (ISI Marked)

Speed Variation :

Stepped pulley "V" belt drive to run the pump at 3 different speeds.

Electrical Panel :

Starter and Energy meter for the measurement of input power

Sump Tank :

M.S. Powder Coating/M.S. FRP Lining/S.S Unit of suitable size provided with standard fittings for measuring discharge of water.

Others :

Piping system consisting of Pipes, Pressure relief valve, Gate valve and fitting with Pressure gauge.



Closed Circuit Hydraulic Ram Test Rig



Closed Circuit Gear Oil Pump Test Rig

CLOSED CIRCUIT HYDRAULIC RAM TEST RIG

Hydraulic Ram :

Hydraulic Ram of size 50 x 15m to work against a delivery head up to 20m from a supply head of 2.5metres to discharge about 250LPH at 10m head.

Supply Tank :

M.S Powder Coating/M.S FRP Lining/S.S Unit tank of suitable size with over flow arrangement for supply of water at constant head of 2.5 meters.

Supply & Delivery Pipings :

Supply pipe of size 50mm & 6 meter length connecting supply tank & Hydraulic Ram and delivery pipe of ½ " size to deliver useful water from Hydraulic Ram to measuring tank.

Measuring Tank :

M.S Powder Coating/M.S. FRP Lining/ S.S Unit of suitable size provided with standard fittings for measuring of useful water.

Notch Tank :

M.S. Unit with FRP Lining/S.S Unit with a brass Notch plate and hook gauge for measurement of waste water.

Sump Tank :

M.S. Unit with FRP Lining/S.S Unit of suitable size for independent circulation of water through the unit.

Supply Pump Set :

0.5HP, Single phase to supply water from the sump to the supply tank.

CLOSED CIRCUIT GEAR OIL PUMP TEST RIG

Pump :

A Gear oil pump of size 25mm to discharge about 30LPM against a maximum working pressure of 2Kg/Cm²

Motor :

1Hp, 1400RPM, Single phase, 200/220V, AC supply.

Electrical Panel :

Switch and Energy meter for the measurement of power input

Sump Tank :

M.S. Powder Coating/M.S. FRP Lining/S.S Unit of suitable size store sufficient water for independent circulation through the unit.

Measuring Tank :

M.S. Powder Coating/M.S.FRP Lining/S.S Unit suitable size provided with standard fittings for measuring discharge of water.

Others:

Piping system consisting of Pipes, Pressure relief valve, Gate valve and fitting with Pressure gauge.

Service Required :

Oil/High speed diesel of about 60lts.



CLOSED CIRCUIT RECIPROCATING PUMP TEST RIG

Pump :

Double acting reciprocating pump of size 25 x 20mm with air vessel to discharge about 20LPM at 20 meters total head. (Make: Suguna)

Motor :

1Hp, 1400RPM, Single phase, 200/220V, AC supply.

Speed Variation :

Stepped pulley reduction "V" belt drive to run the pump at 3 different speeds

Electrical Panel :

Switch and Energy meter for the measurement of power input

Sump Tank :

M.S. Powder Coating/M.S. FRP Lining/S.S Unit of suitable size To store sufficient water for independent circulation through the unit.

Measuring Tank :

M.S. Powder Coating/M.S.FRP Lining/S.S Unit suitable size capacity provided with standard fittings for measuring discharge of water.

Others :

Piping system consisting of Pipes, Pressure relief valve, Gate valve And fitting with Pressure gauge.

CLOSED CIRCUIT AXIAL FLOW PUMP TEST RIG

Pump :

Axial Flow Pump to Discharge About 150LPM

Motor :

3HP, Three phase. 400/440V, AC supply

Electrical Panel :

Switch & Energy meter for the measurement of power Input.

Sump Tank :

M.S. Unit with FRP Lining/S.S Unit of suitable size to store sufficient water for independent circulation through the unit.

Measuring Tank :

M.S. Unit with FRP Lining/ S.S. Unit of suitable size provided with standard fittings for measuring discharge of water

Others :

Piping system consisting of Pipes, Pressure relief valve, Gate valve and fitting with pressure gauge.

QUALITY POLICY

The Management and the staff of LabTek is committed to provide Educational training equipments and test & measurement products and services on par with international standards with and emphasis on cost effectiveness, customer satisfaction and market coverage. It is our endeavor to create a culture of total quality where continuous improvement of our products by increasing involvement of people through customer oriented, flexible, multiple job functions with emphasis on cost consciousness becomes a way of life.

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Mob: +91-99710-77233, +91-98118-88915
E-mail: labtekindia@gmail.com, **Website:** www.labtekindia.com

Works :

80-A, Rajendra Nagar Industrial Area, Sahibabad, Ghaziabad-210005, Uttar Pradesh (India)