

# **SHRI A.P.D.JAIN PATHASHALA**

WALCHAND GROUP OF EDUCATION, SOLAPUR

E- TENDER

# SHRI A.P.D.JAIN PATHASHALA

WALCHAND GROUP OF EDUCATION, SOLAPUR

## 1) Walchand Institute of Technology, Solapur.

e- Tender for Supply & Installation of Laboratory Equipments.

1. Name of Bidder:

2. Full Address:

3. Mobile No/e-mail ID:

4. PAN Number:

5. Experience

6. Terms & condition are:

Whether acceptable or not

7. Client list with contact No. :

Above document Attach With technical bid

Authorized Signatory:

Name:

Designation:



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1) Walchand Institute of Technology, Solapur.

E- Tender for Laboratory Equipment Supplying & Installation from manufacturer/ authorized dealer. The detail of e-tender is as follows.

## e- Tender Time Table

|   |   |  |
|---|---|--|
| 1 | e-Tender Publishing Date  | Date: - 25/7/2023 Time   |
| 2 | Tender Sale/Download & Submission Start Date and Time                     | Date: - 25/7/2023 Time   |
| 3 | Closing date and time of e-Tender   | Date: - 03/8/2023 Time   |
| 4 | Date and place of online opening of E-Tender (Technical Bid Opening Date) | Date: - 04/8/2023 Time<br>Walchand Institute of Technology,<br>Solapur.<br>Walchand Hirachand Marg, Ashok chowk,<br>Solapur. |

### Terms& conditions:

1. Valid GST Number and HSN code of product must be mentioned on quotation.
2. Conditional and unsigned quotation will not be accepted.
3. Incomplete quotation or received after due date shall be rejected.
4. The quotation shall not contain correction, erasers and overwriting, it will result in rejection of quotation
5. The rates of items must be quoted according to full specification as per requirement along with all terms and conditions.
6. Quotation should reach by hand, by post or by e-Mail within **10 Days** from the publication of this notice.(E-mail Id witstore.solapur@gmail.com)
7. Quotation should be stamped and signed on supplier letterhead.
8. The quotation should include all types of taxes and transportation.
9. The Institute reserves all the rights to accept or reject any / all quotation and to increase or decrease quantity or quality of items specified without specifying any reason.
10. Quotation to be submitted/ delivered at address - **Walchand College of Arts & Science(Autonomous), Solapur.(Central Store) / Walchand Hirachand Marg, Ashok chowk, Solapur, Maharashtra- 413006.**

# E- Tender Document for Supply & Installation of Fluid Mechanics Laboratory Equipments.

**Walchand Institute of Technology, Solapur.  
List of Instruments/Equipments:**

| <b>Sr. No</b> | <b>INSTRUMENTS</b>                                     | <b>Quantity</b> | <b>MRP</b> | <b>Discounted Price</b> |
|---------------|--|-----------------|------------|-------------------------|
| 1             | Reynolds Apparatus                                     | 01              |            |                         |
| 2             | Losses in Pipes Apparatus                              | 01              |            |                         |
| 3             | Orifice & Mouthpiece Apparatus                         | 01              |            |                         |
| 4             | Notch Apparatus  | 01              |            |                         |
| 5             | Adjustable Channel (Tilting Flume Apparatus)           | 01              |            |                         |
| 6             | Water Current Meter                                    | 01              |            |                         |
| 7             | Performance Testing of Pelton Wheel Turbine (Test Rig) | 01              |            |                         |
| 8             | Performance Testing of Francis Turbine (Test Rig)      | 01              |            |                         |

## **Item: Reynolds Apparatus**

### **Technical Specifications**

- Storage tank size: 400mm x 400mm x 700mm made up of 18 SWG S.S. sheet with 1.5mm FRP lining internally & externally powder coated.
- Acrylic tube of 25 mm outer diameter & 90 cm long.
- Suitable stand to mount the Acrylic tube.
- Dye tank of suitable capacity.
- Support stand.



## **Item: Losses in Pipes Apparatus**

### **Technical Specifications**

- Pipe circuit consisting of sudden contraction, sudden enlargement, bend & elbow.
- Pipe fitting -
  - A) Pipe elbow.
  - B) Pipe bends.
  - C) Sudden expansion 1/2" to 1"
  - D) Sudden Contraction 1" to 1/2".
- Differential manometer.
- Flow control valve.

## **Item: Orifice & Mouthpiece Apparatus**

### **Technical Specifications**

- An arrangement to obtain a steady or quiescent flow.
- An arrangement to vary the head by changing the position of over flow pipe.
- Piezometer tube to measure head.
- Storage Tank of 1.8 SWG S.S. sheet with 1.5 mm FRP polymer of capacity of 140 Lit.
- Monoblock Pump single 1/2 H.P.
- Orifice 10 mm - 1 No.
- Mouth piece 10 mm - 1 No
- Sump Tank - 140 Liters.
- Supply Tank - 40 Liters.
- Measuring Tank - 35 Liters.

## **Item: Notch Apparatus**

### **Technical Specifications**

- 60° V notch, rectangular notch, Trapezoidal notch
- Fitting arrangement - 250 x 250 x 1250 mm with notches
- 1" G.I. piping and 1" Brass valves
- Sump Tank 900 x 400 x 400 mm S.S. tank with F.R.P. coating
- Measuring tank 400 x 300 x 300 mm with piezometric arrangement
- 1/2 H.P. monoblock centrifugal pump.
- 1 Ph 230 volt AC supply

### **Item: Adjustable Channel (Tilting Flume Apparatus)**

#### **Technical Specifications**

- A hydraulic flume of c/s 200x300mm & 6000mm length with transparent window on either sides of 1000 mm length.
  - Sliding gate one at upstream and other side.
  - Screw jack for change of the slope of flume.
  - A Sump tank of sufficient capacity.
  - Supply tank with waves damping arrangement.
  - 1 H.P. centrifugal monoblock pump
  - A Orificemeter with manometer to measure the discharge .Inlet/throat dimensions 50/25mm.
  - Trolley with point gauge for level measurement.
  - Model supplied
- A) Sharp crested weir (crest length 200mm)  
B) Broad crested weir.  
C) ogee weir or spillway.  
D) Venturiflume.

### **Item: Water Current Meter**

#### **Technical Specifications**

- Cup type current meter with front hoop.
- Arrangement of suspension cable with lead weight

### **Item: Performance Testing of Pelton Wheel Turbine (Test Rig)**

#### **Technical Specifications**

- Turbine size - 300mm with 18 Nos of buckets.
  - Sump Tank - Size 1250 mm x 600 mm made of 16 SWG CRC sheet with 105 mm F.R.P. Drain cock -to drain the water after experimentation.
  - Monoblock Pump - 3 phase 5 HP pump .Head 30 Mtr.
  - Output Power - The turbine develops 1 Kw Approx.
  - Flow Measure unit -
- A) Inlet Dia of Venturi - 52 mm.  
B) Throat Dia of Venturi - 35 mm.  
C) Manometer - u Tube Double column differential Type.  
D) Pressure gauge to measure head - 0-4 Kg/cm<sup>2</sup> , 205" dial Size
- Electrical Units - Switch and starter suitable for the above monoblock pump set.



## **Item: Performance Testing of Francis Turbine (Test Rig)**

### **Technical Specifications**

- Turbine size - 300 mm
- Output Power -
  - A) Develop 1 Kw at 1250 rpm. with a flow of about 1000 L.P.M. At 10 m Supply head.
  - B) Pressure gauge - 0 to 4 Kg/cm<sup>2</sup>.
  - C) vacuum gauge - 0 to 760 mm of Hg.
- Pipes and Valves -
  - A) Piping - G.I. Pipe.
  - B) Pipe dia - 3".
  - C) Gate Valve - 3" brass.
  - D) Turbine casing, Brake drum & shaft casing - cast iron.
  - E) Shaft - SS.
  - F) Guide Vanes - Aluminium.
  - G) Runner - Gun Metal - 102 mm OD.
- Pump Set unit - 5 HP monoblock Supply pump set.
- Flow Measuring Unit -
  - A) Flow measuring unit consisting of a suitable venturimeter & pressure gauge.
  - B) Inlet dia of Venturi - 78 mm.

### **TERMS & CONDITIONS:**

- **Rates Comparison**

Bidders are requested to send their rates (inclusive of transportation, loading, unloading, GST etc, nothing extra will be paid and free delivery and installation) on FOR, Walchand Institute of Technology, Solapur.

- **Spares:**

The spare parts/wear & tear consumables, if any, required for trouble free operation of equipment to be quoted separately giving the full nomenclature, rate, quantity and shelf life of each item.

- **Delivery & Installation:**

All the goods ordered shall be delivered and installed at Permanent Campus of the Institute, Walchand Hirachand Marg, Ashok Chowk, Solapur. Within 4 weeks/Day from the date of issue of the purchase order all the aspects of safe delivery and commissioning shall be the exclusive responsibility of the supplier. If the supplier fails to deliver

and commissioning of the goods on or before the stipulated date, then a penalty at the rate of 1% per week of the total order value shall be levied subject to maximum of 10% of the total order value. The goods are to be supplied within this stipulated period, failing which the supply order is liable to be cancelled

- **Satisfactory Installation:**  
Satisfactory installation / commissioning and handing over of the equipment mean the faultless functioning of the equipment for a minimum period of 30 days after satisfactory installation.
  - **Guarantee / Warranty:**  
Three year warranty has to be provided by the firm from the date of the satisfactory installation / commissioning of equipment against the defect of any manufacturing, workmanship and poor quality of components. In case, there is any variation in the warranty as per the specification of the item equipment, the warranty as specified in the specifications shall be final.
  - **Acceptance of Terms & Conditions:**  
Bidders must confirm the acceptance of all the terms and conditions of this NIQ. Any non-acceptance or deviations from the terms and conditions must be clearly mentioned. However, tenderers must note carefully that any conditional offer or any deviation from the terms and conditions of this NIQ may render the quotation liable for rejection. **WIT** does not bind itself to accept the lowest of any tender and reserves the right to reject any or all tenders without assigning any reason.
- Note: The Institute reserves the right to accept/reject any or all tenders without assigning any reasons thereof and also to reject.
- **Jurisdiction:**  
The courts at Solapur alone will have the jurisdiction to try any matter, dispute or reference between parties arising out of this tender / contract. It is specifically agreed that no court outside and other than Solapur court shall have jurisdiction in the matter.

Dr. S. C. Deshmukh  
(Dr. S. C. Deshmukh)  
Arid Mechanics Lab Incharge.

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