



Indian Institute of Technology Jodhpur

N.H. 62, Nagaur Road, Karwar, Jodhpur - 342030, Rajasthan (India)

☎ 0291-280-1502 | ✉ office_me@iitj.ac.in

Website: Department: www.iitj.ac.in/mechanical-engineering | IITJ: www.iitj.ac.in

INDIAN INSTITUTE OF TECHNOLOGY JODHPUR

Request For Technical Information and Pro Forma Quotations

For Procurement of Workbench for Pipe Friction Experiments

1. Introduction

The Indian Institute of Technology Jodhpur (IIT Jodhpur) intends to procure **Workbench for Pipe Friction Experiments** for academic and research purposes.

Before initiating the formal procurement process, the Institute invites **Technical Information And Indicative Pro Forma Quotations** from eligible Original Equipment Manufacturers (OEMs) or their authorized representatives.

2. Purpose

The objectives are to:

- Obtain technical information from prospective OEMs/authorized representatives.
- Obtain indicative Pro forma quotations for estimating the procurement cost.

3. Disclaimer

This document is issued **only for obtaining technical information and indicative Pro Forma quotations**.

Submission of information under this proposal:

- shall **not** be treated as a financial bid;
- shall **not** constitute any commitment on the part of IIT Jodhpur to procure the equipment;
- shall **not** confer any right upon the participating firm for award of any future contract;
- shall **not** automatically qualify the responding firm for participation in any future tender.

The Institute reserves the right to modify the technical specifications, estimated cost, procurement methodology, or procurement timeline based on its requirements.

4. Equipment Details

- Name of Equipment: **Workbench for Pipe Friction Experiments**
- Quantity: **1**



Indian Institute of Technology Jodhpur

N.H. 62, Nagaur Road, Karwar, Jodhpur - 342030, Rajasthan (India)

☎ 0291-280-1502 | ✉ office_me@iitj.ac.in

Website: Department: www.iitj.ac.in/mechanical-engineering | IITJ: www.iitj.ac.in

- Broad Functional Requirements (The essential functions or capabilities that the equipment should have, without mentioning a specific make, model, or brand):

A workbench is to be procured for conducting experiments designed for measuring pressure drop along various regions of a flow circuit, composed of straight pipe segments and pipe elements like bends, converging sections, and diverging sections. The pedagogical objective is to illuminate students on the fundamentals of frictional losses in pipe-flow systems, including the Darcy-Weisbach friction factor, the Moody chart, Reynolds number & laminar-turbulent transition, and other empirical relations applicable to major and minor losses in pipe-flow systems. The students will also gain familiarity with operation, functioning and calibration of centrifugal pump system, flow circuitry, flow control devices like various valves, digital (e.g., piezoelectric, impedance-based, etc.) and analog (accumulation based, density-based, etc.) measurement techniques for flow rate and pressure. The measurement techniques the students will learn to operate will include manual data-accumulation with either visual feedback (e.g., differential pressure measurement with manometer) or data capturing from the digital display (e.g., measurement of pressure drop in electronic differential pressure transducers), and automatic data acquisition systems (DAQs). Multiple runs of the experiment will familiarize the students with experimental uncertainty, error-bar calculation and analysis, and other key experimental techniques.

Technical Specifications

The Workbench can investigate the following:

- A. The effect of pipe geometry – diameter, roughness, effect of curvature, etc. on frictional losses is quantified as pressure drop
- B. Impact of flow velocity on pressure drop – laminar, transitional, and turbulent flow
- C. Determination of friction factor and their comparison with Moody chart
- D. Various flow measuring processes (instantaneous and cumulative)
- E. Various pressure measuring processes (absolute and differential)
- F. Functioning and calibration of pipe elements including orifice meter, venturi-meter, variable cross-section elements like nozzles, flow control devices like valves, etc.
- G. Computer-aided continuous data acquisition

(The above requirements are indicative and may be revised after evaluation of the responses.)



Indian Institute of Technology Jodhpur

N.H. 62, Nagaur Road, Karwar, Jodhpur - 342030, Rajasthan (India)

☎ 0291-280-1502 | ✉ office_me@iitj.ac.in

Website: Department: www.iitj.ac.in/mechanical-engineering | IITJ: www.iitj.ac.in

5. Eligibility Criteria

Interested firms should:

- Be an Original Equipment Manufacturer (OEM) or an authorized distributor/ dealer.
- Have experience in supplying similar equipment.
- Have adequate installation and after-sales service support in India.

6. Information/Documents to be Submitted

The interested firms shall submit the following (*Annexure-I*):

1. Company Profile.
2. Details of the OEM.
3. Product Brochure/Catalogue.
4. Detailed Technical Specifications.
5. Compliance with the Broad Functional Requirements.
6. List of previous users/clients with installation reports
7. Details of Warranty.
8. Details of After-Sales Service Support.
9. Authorization Letter from OEM (where applicable).
10. Any additional technical information relevant to the offered equipment.

7. Pro forma Quotation

- Interested firms are requested to submit a Pro forma Quotation (*Annexure-II*) along with their Request For Technical Information and Pro Forma Quotations response. Indicative **Pro Forma** quotation in Indian Rupees (INR), including the cost of the equipment, essential accessories, taxes, duties, freight, insurance, installation, commissioning, training, and any other associated charges. Wherever applicable, the Annual Maintenance Contract (AMC) and/or Comprehensive Maintenance Contract (CMC) charges and spare parts shall be quoted separately as additional charges.
- Expected delivery schedule and other relevant technical and commercial information.

Important Note:

- The **Pro Forma** quotation is required only for cost estimation and budget planning purposes.
- The prices quoted shall be indicative/non-binding.
- The Pro Forma quotation shall not be treated as a financial bid.
- Submission of a **Pro Forma** quotation shall not confer any right or preference in the subsequent procurement process.



Indian Institute of Technology Jodhpur

N.H. 62, Nagaur Road, Karwar, Jodhpur - 342030, Rajasthan (India)

☎ 0291-280-1502 | ✉ office_me@iitj.ac.in

Website: Department: www.iitj.ac.in/mechanical-engineering | IITJ: www.iitj.ac.in

8. Presentation/Demonstration

The Institute may invite for a technical presentation or product demonstration. The date and venue shall be communicated separately.

9. Submission :

Interested firms may submit their Proforma Quotations on or before the due date in sealed cover or through email (as applicable).

The envelope/email should be superscribed as:

"Request For Technical Information and Pro forma Quotations for Procurement of Workbench for Pipe Friction Experiments"

8. Important Dates

Activity	Date
Publication	22 Jul 2026
Last Date for Submission	31 Jul 2026
Technical Presentation (if required)	To be informed
Clarification Meeting (if required)	To be informed

10. General Terms & Conditions

1. This **Request For Technical Information and Pro forma Quotations** is issued only for obtaining technical information and **Pro Forma** estimates.
2. The Institute reserves the right to accept or reject any or all responses without assigning any reason.
3. Submission of an **Request For Technical Information and Pro forma Quotations** does not create any contractual obligation.
4. The Institute may seek additional information, technical clarifications, demonstrations, or presentations from any participant.
5. The Institute may modify the technical requirements based on the responses received.
6. The final technical specifications may be prepared by the User Committee after evaluating all **Request For Technical Information and Pro forma Quotations** responses.
7. The subsequent procurement, if any, shall be carried out through an appropriate procurement method in accordance with the GFR 2017 and applicable procurement rules.
8. Participation in this **Request For Technical Information and Pro forma Quotations** does not automatically entitle any firm to participate in or receive any preference during the subsequent tender process.



Indian Institute of Technology Jodhpur

N.H. 62, Nagaur Road, Karwar, Jodhpur - 342030, Rajasthan (India)

☎ 0291-280-1502 | ✉ office_me@iitj.ac.in

Website: Department: www.iitj.ac.in/mechanical-engineering | IITJ: www.iitj.ac.in

11. Contact Details

Name: Pratyaksh Karan

Designation: Assistant Professor

Department: Mechanical Engineering

Email: pratyakshkaran@iitj.ac.in



Indian Institute of Technology Jodhpur

N.H. 62, Nagaur Road, Karwar, Jodhpur - 342030, Rajasthan (India)

☎ 0291-280-1502 | ✉ office_me@iitj.ac.in

Website: Department: www.iitj.ac.in/mechanical-engineering | IITJ: www.iitj.ac.in

Annexure-I **Request For Technical Information and Pro forma Quotations Response Format**

1. Name of the Firm:
2. Registered Address:
3. Name of OEM (if applicable):
4. Contact Person:
5. Email:
6. Phone:
7. Product Name and Model:
8. Brief Technical Description:
9. Compliance with Broad Functional Requirements:
10. List of previous users/clients with installation reports:
11. After-Sales Service Details:
12. Any Additional Features:
13. Remarks (if any).



Indian Institute of Technology Jodhpur

N.H. 62, Nagaur Road, Karwar, Jodhpur - 342030, Rajasthan (India)

☎ 0291-280-1502 | ✉ office_me@iitj.ac.in

Website: Department: www.iitj.ac.in/mechanical-engineering | IITJ: www.iitj.ac.in

Annexure-II

Format for Pro forma Quotation

Sl. No.	Description	Amount (INR)
1	Indicative Pro forma quotation in Indian Rupees (INR), including the cost of the equipment, essential accessories, taxes, duties, freight, insurance, installation, commissioning, training, and any other associated charges.	

Warranty Period: _____

AMC/CMC Charges (after warranty): _____

Delivery Period: _____

Authorized Signatory

Name: _____

Designation: _____

Company Seal & Signature