



Ref: ChE/2022-23/VS/02

15 June 2022

ANNEXURE-I

DEPARTMENT OF CHEMICAL ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY (B.H.U.) VARANASI

ENQUIRY

Due Date: 06 July 2022

Date: 15 June 2022

Dear Sir,

Please submit your lowest quotation for supplying the under-mentioned items. The quotation must reach us before the date marked above and should contain the following information:

1. Full specification and make of the item offered and its rate F.O.R. Varanasi/C.I.F. New Delhi.
2. Sales tax at a concessional rate as applicable to the educational institution.
3. Your sales tax registration number and T.A.N. number.
4. Conditions of supply and terms of payment.
5. If you are a manufacturer of the item or if you have a proprietary right over it, please mention it in the quotation and provide a certificate.
6. Please mention your agency commission in Indian currency. If applicable (in case of imported items).
7. Please give an undertaking as per annexure-I-B

The quotation must be sent in a **sealed envelope** with the word "QUOTATION", our reference number, and due date as given above clearly marked over it to the address: **Dr. Vijay Shinde, Assistant Professor, Department of Chemical Engineering, Indian Institute of Technology (B.H.U.) VARANASI 221005.**

Technical Specifications: Cold Flow Fluidised Bed Reactor

<p>1. Reactor 1.1 Reactor: 03 set Type: Fluidised bed reactor Catalyst: Al_2O_3/SiO_2 (80 μm) Catalyst of weight : 20-30 g Operating Pressure: 1 Bar Design Pressure: 5 Bar Operating Temperature: 25 Deg C Design Temperature: 25 Deg C M.O.C.: acrylic</p> <p>2. Gas Feed Assembly 2.1 Flow Controller: 03 set Gas: Ar/N_2, $CH_4/CO/C_2H_2$, CO_2 Flow : 5-50 SLPH</p>	<p>4. Gas solid separator: 01 set Capacity: 1 liter Design Pressure: 5 Bar Operating Pressure: 1 Bar</p> <p>5. Valves Isolation Valve (2/3 ways), Needle Valve, Non-Return valve, Pressure safety relief valve etc.: As per requirement. M.O.C.: SS 316</p> <p>6. Fittings & Tubing: As per requirement</p> <p>7. P.I.D. based Control Panel Reactor's temperature controller, Gas Flow</p>
--	---



भारतीय प्रौद्योगिकी संस्थान
INDIAN INSTITUTE OF TECHNOLOGY
(काशी हिन्दू विश्वविद्यालय)
(BANARAS HINDU UNIVERSITY)

रासायनिक अभियांत्रिकी एवं प्रौद्योगिकी विभाग
DEPARTMENT OF CHEMICAL ENGINEERING & TECHNOLOGY
(उच्चानुशीलन केन्द्र एवं डी एस टी प्रायोजित 'फिस्ट' विभाग)
(CENTRE OF ADVANCED STUDY & DST DEPARTMENT UNDER FIST)
(वाराणसी - 221005) Varanasi - 221005

<p>Operating Pressure: 1 Bar Operating Temperature: Ambient</p> <p>3. Instruments</p> <p>3.1 Pressure gauge: As per requirement. Type: Bourdon Pressure Range: 0-5 Bar</p> <p>3.2 Temperature thermocouples: As per requirement Type: K-type Temperature Range: 25-800 Deg C</p> <p>3.3 Differential Pressure regulator: 01 set Pressure: 0-5 Bar Data logging: Online</p>	<p>controllers, & pressure indication</p> <p>8. Structure: Aluminium/Iron</p> <p>9. Gas Cylinders 20% CH₄ (balance Argon), 20% C₂H₂ (balance Argon) and 20 % CO (balance Argon) gas cylinders filled with UHP gases. Valid Explosive License Certificate for each cylinder. Capacity: 47 ltrs.</p> <p>10. Double stage pressure regulators for the gas cylinders mentioned in 9. (S.S. Diaphragm, Gauges)</p>
--	---

HOD/COS/PI