

1750

**SPEED POST**



Offi : 0261-2259571-2259582-584

Fax : 0261-2227334, 2228394

Website: [www.svnit.ac.in](http://www.svnit.ac.in)

Grams :

**SARDAR VALLABHBHAI NATIONAL  
INSTITUTE OF TECHNOLOGY, SURAT-395 007.**

No. DoME/Seed Money/ KAS / 2745/2024-25 / 1929

Date: 25/10/2024

To,  
Institute Website

त्वरित डाक  
SPEED POST

25 OCT 2024

***SUB: - Enquiry for Biodiesel reactor with instrumentation.***

Dear Sir,

You are requested to quote your prices for supply of stores listed overleaf. The quotations may be sent to the undersigned in a sealed envelope and subscribed as: "Quotation with reference to Enquiry No. DoME/Seed Money/KAS / 2745/2024-25 dtd: 25/10/2024. Your quotation should reach the undersigned on or before **15/11/2024 at 5:00 pm.**

The quotations should be furnished with the following information.

- 1) The brand or make of each item should be specifically stated and wherever necessary, Complete set of specifications and dimensions should be given.
- 2) If asked, samples are accompany the quotations
- 3) Sales tax, General tax, Central Sales tax, Custom duty, Insurance charges, Packing and Forwarding charges, if not included in the prices quoted, should be clearly specified.
- 4) The period of validity of the quotation should be at least 60 Days. Offers subject to prior sale may please be avoided.
- 5) The delivery period is to be clearly mentioned in the quotation.
- 6) The mode of delivery of the stores may be mentioned. The delivery should be F.O.R. Surat or at the Institute.
- 7) All concessions available to an educational institution should be specified and also taken into account while quoting.
- 8) This Institute is located within the limits of S.M.C. & exempted from the paying of octroi duty on incoming goods from outside limits of S.M.C.
- 9) This Institute is registered with the dept. of scientific & industrial Research (DSIR) for the purpose of availing custom duty exemption & central excise duty exemption, and hence the certificate to this effect will be issued wherever it is necessary on demand.
- 10) Payment is normally made by cheque drawn on the S.V.N.I.T. Branch Office of State Bank of India, Surat-395007 within a period of thirty days from the date of receipt of stores.
- 11) Your specifications & terms- conditions should be as per the format attached, must be on your company letterhead & signed by an authorized person.
- 12) Offered quotation may be rejected if any ambiguity is found in offered specifications, terms & conditions supplied by party in specified tabular format.
- 13) The Director reserves the right to accept stores, which are not strictly in confirming with the specifications but otherwise, found suitable.

Yours faithfully,

*Shan Shaur*  
25/10/24

Head, Mech. Engg. Dept



## Specifications

Sr. No.	Item Name
1.	<p><b>BIODIESEL REACTOR WITH INSTRUMENTATION</b> <b>(Type: Hydrodynamic Cavitation Reactor as shown in Fig 1)</b></p> <p><u>Specification/ Technical data:</u></p> <ol style="list-style-type: none"><li>1. Reactor Tank<ul style="list-style-type: none"><li>➤ Capacity: 15L</li><li>➤ Made of Stainless steel</li></ul></li><li>2. Standalone test rig with control panel mounted on the main frame.</li><li>3. Pump<ul style="list-style-type: none"><li>➤ Type: Centrifugal</li><li>➤ Power Consumption: 2 HP</li></ul></li><li>4. The apparatus consists of the orifice sections<ul style="list-style-type: none"><li>➤ 1 vertical orifice</li></ul></li><li>5. Orifice plates are easy to change with the help of quick couplings</li><li>6. Pressure and Temperature measurement at inlet and outlet of orifice.</li><li>7. Stainless steel pipe<ul style="list-style-type: none"><li>➤ Length: min 6 meters</li><li>➤ Inner diameter: 20 mm</li><li>➤ Thickness: 2 mm</li></ul></li><li>8. SS Ball valves to control the path and flow of the fluid.</li><li>9. Pressure gauges:<ul style="list-style-type: none"><li>➤ Upstream pressure gauge: 0 to 10 bar.</li><li>➤ Downstream pressure gauge: 0 to 10 bar.</li></ul></li><li>10. Heater to apply heat load on the fluid under test.</li><li>11. SS orifice plates of 2 mm thickness of 40 mm diameter having<ul style="list-style-type: none"><li>➤ 9 holes of 2 mm diameter</li><li>➤ 17 holes of 2 mm diameter</li><li>➤ 17 holes of 3 mm diameter</li></ul></li><li>12. Insulation of minimum 5 mm thickness</li><li>13. Rotameter with flow rate 0-5000 LPH</li><li>14. Energy meter<ul style="list-style-type: none"><li>➤ Voltage: up to 440V AC</li><li>➤ Current: 100A</li></ul></li><li>15. Temperature Indicator<ul style="list-style-type: none"><li>➤ Channel – 8 Channels</li><li>➤ Sensor – K Type</li><li>➤ Range – 0-200°C</li></ul></li></ol>



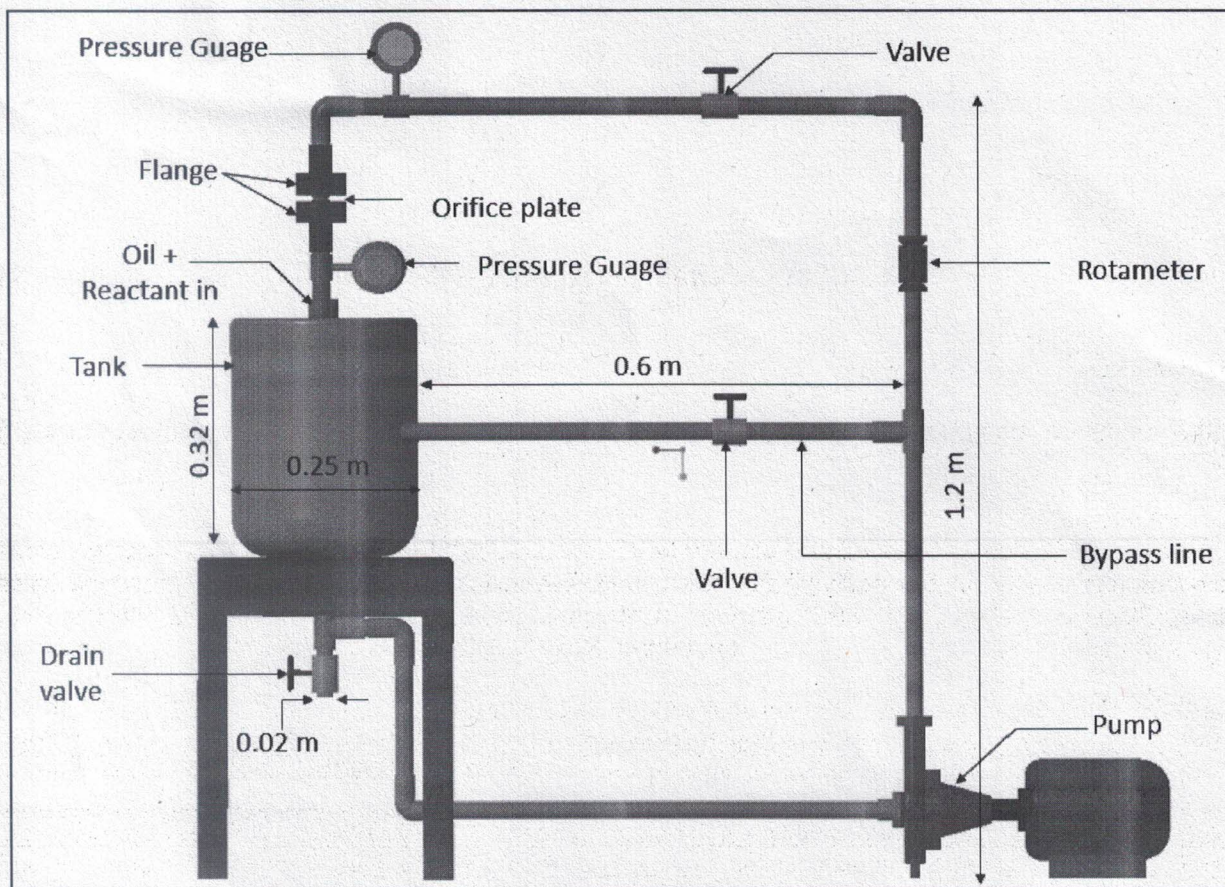


Fig 1: Schematic Diagram of Hydrodynamic Cavitation Reactor (Indicative)