

A Deemed University u/s 3 of UGC Act, 1956 MESRA 835215, RANCHI (INDIA)

Phone: 0651-2276030/2276290 Email: purchase2@bitmesra.ac.in Website: www.bitmesra.ac.in

SHORT TIME TENDER

BIT/PUR/STT/CME/23-24//IC000797/2023 ®

DATE:03/01/2024

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Dear Sir,

Subject : Request for Quotation for Procurement of INTERACTING AND NON INTERACTING SYSTEM, VOCOSITY MEASURING APPARATUS

You are requested to submit most competitive rates(s) for the following item(s) as per details given below (Sealed Quotations may be sent by hand or by post):

Last date and time for submissions of complete Quotations by (Password protected)
Email to dr.purchase@bitmesra.ac.in,
purchase2@bitmesra.ac.in sealed quotations can be submitted to the under mentioned address.

18.03.2024 15:00 Hrs.

(If all LTE Vendors submit the quotation prior to the submission date, the quotations will be opened prior to last date of submission.)

Sr.No.	Item Description	Quantity
1	INTERACTING AND NON INTERACTING SYSTEM, VOCOSITY MEASURING	01 Nos.
	APPARATUS	
	1. Redwood I & II Viscometer :-	
	These viscometers are used to determine the viscosity of petroleum	
	products. Two adoption of Red Wood viscometer are available No. 1 for	
	liquids having Red Wood flow 20 seconds to 2000 seconds and No. 2 for	
	liquids whose flow time exceeds 2000 seconds and No. 2 for liquids whose	
	flow time exceeds 2000 seconds.	
	Redwood Viscometer is used for the determination of redwood viscosity and	
	which can be converted to	
	Kinematic viscosity also. It is also used for observing the effect of	
	temperature on viscosity by plotting graph.	
	Standard: Red wood Viscometer NO-1 & 2 as per IP-70.	
	• . Construction :	
	A. Red wood no1 & 2 cup fitted in a single bath. Double Walled Construction,	
	Bath made of S.S. & outer body made of M.S with powder coated External	
	Surface For Aesthetic Appearance.	
	One LED light fitted in back side of the 60ml receiving flask	
	B. Cooling arrangement has been provided.	
	Control Panel / Display :	
	A. Power Tripping Facility	
	B. Precision type Digital Temp. Controller	
	C. Heater Indication Switch.	
	Type Of Bath : Electrically Heated Immersion Heater.	
	Max Working Temperature : 99 Degree C	
	Continuous Working Temperature : 95 Degree C	



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• Capacity: 1 Sample At A Time.

• Heater : S. Steel Tubular Immersion Heater

Accuracy: +/- 0.1 Degree C
Readability: +/- 0.1 Degree C

• Temperature Controller : By Energy Regulator Which Will Turn On & Off Heater As Time Switch.

• Input Power Supply: 230 V Ac, 50 Hz, 1 Phase With 6 Amp Current Rating.

• Heating Load: 1 Kw.

• Motorized Stirrer: Bath liquid Stirrer Blade for Maintaining Uniformity through out the Chamber.

• Top Lid Made Of Stainless Steel With Provision Of Mounting Of One Thermometer.

2. Engler Viscometer :-

It is suitable to determine ratio between the time used by an asphalt sample or other petroleum products sample flowing out of Engler viscometer under a certain temperature and volume, and that of distilled water flowing out of Engler viscometer at 25 oC. The ratio is the Engler viscosity of asphalt or other petroleum products. The temperature of distilled water and the cubage of receiving flask may be different for other petroleum products measurement.

Standard: as per IP-212.

The instrument is composed of tester and Electrically heated with energy regulator control. Desktop structure.

Both of inner and outer crucible adopt stainless materials. Inner crucible has been specially processed. The smooth finish corresponds with the test requirements.

- 1. Standard water value 51±1 s (Water temperature 20±0.1 oC; 200 ml; It can be converted into water value at 25±0.1 oC, 50 ml)
- 2. Temperature measurement range 0oC~100oC
- 3. Temperature controlling accuracy ±0.1oC
- 4. Thermometer In accordance with T0622
- 5. Measuring flask 100 ml
- 6. Inner container Made of stainless steel
- 7. Power of heater 550 W
- 8. Timer accuracy 1/100 s

3. Saybolt Viscometer :-

Test Method: Determines the time required for 60mL of sample to flow through a calibrated orifice under precisely controlled conditions. Saybolt Universal Seconds (SUS) is the standard measurement for lubricants, insulating oils, and lighter fuel grades, and Saybolt Furl Seconds (SFS) is used for heavier oils and bitumen's.

Standard: Conforms to the specifications of ASTM D 88

• Construction :

A. Double Walled Construction, Bath made of S.S. & outer body made of M.S with powder coated External Surface For Aesthetic Appearance. One LED light fitted in back side of the 60ml receiving flask

- B. Cooling arrangement has been provided.
- Control Panel / Display:

A. Power Tripping Facility



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B. Precision type Digital Temp. Controller

C. Heater Indication Switch.

• Type Of Bath: Electrically Heated Immersion Heater.

• Max Working Temperature: 99 Degree C

• Continuous Working Temperature: 95 Degree C

• Capacity: 1 Sample at A Time.

• Heater: S. Steel Tubular Immersion Heater

• Accuracy: +/- 0.1 Degree C

• Readability: +/- 0.5 Degree C

• Temperature Controller : Bath Temp Control by Digital

Temperature Controller

• Input Power Supply: 230 V Ac, 50 Hz, 1 Phase with 6 Amp Current Rating.

• Heating Load: 1 Kw.

- Motorized Stirrer: Bath liquid Stirrer Blade for Maintaining Uniformity through out the Chamber.
- Top Lid Made Of Stainless Steel With Provision Of Mounting Of One Thermometer.

4. Pensky Marten Close Cup Flash Point apparatus : -

Test method: Semi-Automatic Penske Marten Flash Point Apparatus are designed & fabricated to suit various ASTM, IP & I.S. standards application in the growing field of petroleum, grease, Biodiesel, Pharmaceutical Research Laboratories & Various Industries. It has a cutting edge technology to challenge & maintain Climatic conditions above freezing what so ever & where ever you need.

Standard: as per Ip-34, ASTM D-93 & Is-1448 (P-21)

- Temperature : ambient to 370 0 C
- Precision Digital Temperature Controller with an accuracy of +/-

0.10 C

- It determines the flash point by semi-automatic Pensky marten closed cup tester of fuel oils, lube oils, suspension of solids, liquids that tend to form a surface film under test conditions, and other liquids.
- Semi automatic Pensky Marten flash point apparatus electrically heated with temperature control by voltage variac.
- Bath temp control by digital temperature controller
- Accuracy: +/- 0.1 Degree C
- Readability: +/- 0.5 Degree C
- Sample cup with cover & shutter Arrangement. Reducing socket with cock & "Y" for gas jet test flame.
- It can be heated electrically or by gas also.
- Dual speed Deluxe model.

Gas ON/OFF valve.

- With oil cup, lid, gas ignition device.
- Motorized stirrer Blade for Maintaining Uniformity through out the

Chamber.

• Power supply: 230 V, 1 Phase, 50 Hz, 8 A total load.

5. Cleveland Open cup Flash Point apparatus:-

Test method : Semi-Automatic Cleveland Open Cup Apparatus are designed & fabricated to suit various



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ASTM, IP & I.S. standards application in the growing field of petroleum, grease, Biodiesel, Pharmaceutical

Research Laboratories & Various Industries. It has a cutting edge technology to challenge & maintain Climatic conditions above freezing what so ever & where ever you need.

Standard: as per Ip-36, ASTM D-92 & IS-1448(P-69)

- Temperature : Ambient to 370 0 C
- Precision Digital Temperature Indicator with an accuracy of +/-0.10

C

- It determines the flash point by semi-automatic Cleveland Open Cup tester of fuel oils, lube oils, suspension of solids, liquids that tend to form a surface film under test conditions, and other liquids.
- Semi automatic Cleveland Open Cup apparatus electrically heated with temperature control by voltage variac.
- Sample cup with insulated handle.
- Thermometer holding clamp. Reducing socket with cock for gas jet test flame.
 - It can be heated electrically or by gas also.
 - With oil cup, lid, gas ignition device.
- Motorized stirrer Blade for Maintaining Uniformity through out the Chamber.
 - Gas ON/OFF valve.
 - Power supply: 230 V, 1 Phase, 50 Hz, 8 A total load.

6. Abel Closed Cup apparatus

Test method: Semi-Automatic Abel Closed Cup Apparatus are designed & fabricated to suit various ASTM, IP & I.S. standards application in the growing field of petroleum, grease, Biodiesel ,Pharmaceutical Research Laboratories & Various Industries. It has a cutting edge technology to challenge & maintain Climatic conditions above freezing what so ever & where ever you need.

Standard: as Per IP-170 & IS-1448(P-20.

Temperature: Ambient to 100 0 C

• Precision Digital Temperature Indicator with an accuracy of +/-0.10

C

- It determines the flash point by semi-automatic Abel Closed Cup tester of fuel oils, lube oils, suspension of solids, liquids that tend to form a surface film under test conditions, and other liquids.
- Semi automatic Abel Closed Cup apparatus electrically heated with temperature control by voltage variac.
- Sample cup with cover & shutter arrangement
- Thermometer holding clamp.
- Reducing socket with cock for gas jet test Flame.
- It can be heated electrically or by gas also.
- With oil cup, lid, gas ignition device.
- Motorized stirrer Blade for Maintaining Uniformity through out the

Chamber.

- Air arrangement for cooling.
- Gas ON/OFF valve.
- Power supply: 230 V, 1 Phase, 50 Hz, 8 A total load.



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Sealed Quotation may be submitted superscribed with reference number as appended hereunder:-

Quotation for Supply of		
Ref.No BIT/PUR/STT/CME/23-24//IC000797/2023		
То,		
	Dy. Registrar (Purchase) Birla Institute of Technology	
From:	Mesra, Ranchi, Jharkhand - 835215	
M/s		
Address:		
Contact No		
Email ID		

- 1. Original bills in triplicate along with the warranty card will have to be issued by the party to whom order is issued.
- 2. HSN code of the material should be mentioned in quotation.
- 3. All entries in the quotation should be typed or computer printed without any ambiguity and should be free from correction etc. Hand written offers will be rejected.
- 4. Late and delayed tenders will not be considered. In case any unscheduled holiday occurs on prescribed closing date the next working day shall be the prescribed date of closing.
- 5. The quotation should be submitted with descriptive literature & drawing. The make of the items offered should be clearly specified.
- 6. Material should be confirming to our specification. The deviations if any should be clearly indicated in the quotations.
- 7. Successful bidder has to furnish the OEM test certificates along with the materials (if applicable).
- 8. Rate /Price: The offered price shall be on **FOR BIT Mesra on Door Delivery basis**.
- 9. No Advance payment will be considered at any circumstances.
- 10. If offered Price Term is other than the FOR-Destination term, approximate Freight & forwarding charges along with the applicable Insurance charges may be mentioned.
- 11. GST and PAN certificate should be furnished along with quotations.
- 12. Road Permit: The supplier shall arrange Road Permit on his own for transportation material to BIT Mesra and any additional tax liability on this account shall be borne and paid by the supplier.
- 13. Purchaser will not pay separately for transit insurance/taxes (if any) and the supplier will be responsible until the stores arrive in good condition at the destination.
- 14. Warranty: Period of warranty should be clearly mentioned and also the parts covered under it. Warranty will be applicable from the date of successful installation.
- 15. Service Facility: Supplier must mention about the service set up in India & confirm effective after sales service.
- 16. BIT Mesra is not bound to accept the lowest or any quotation for whatsoever reason and reserve its right to accept or reject in whole or in part any or all the quotations received without assigning any reason.
- 17. Applicable taxes shall be quoted separately for all items and levies payable by the supplier under the contract shall be included in the unit price.



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- 18. Each bidder shall submit only one quotation and sealed quotation to be submitted / delivered at the address. (Alternatively it can be email (Password protected) at purchase@bitmesra.ac.in or dr.purchase@bitmesra.ac.in) or deliver by hand.
- 19. Training clause (if any) to be mentioned.
- 20. Delivery period should be mentioned clearly in the quotation. If a firm accepts an order and fails to execute the order in full as per the terms and conditions stipulated therein, it will be open to this Institute to recover liquidated damages from the firm at the rate of 0.5% to 1% per week of the order value subject to a maximum of 10% of the order value.
- 21. Conditional tenders will not be considered.
- 22. Authorized dealership certificate should be submitted in case principal manufacturing company is not quoting directly.
- 23. Copy of Purchase Orders for similar equipment supplied to any other organization desired.
- 24. Annual turnover of company for last 3 year / CA Certificate to be provided.
- 25. Declaration required by the vendor that the price quoted are lowest that I have supplied to any other organization.
- 26. Customs Duty: The Institute is exempted from payment of Customs Duty Vide GOI Notification No. 51/96 Customs, dated 23.07.1996 & No.24/2007-Customs dated 01.03.2007 with registration no 11/161/1990-TU-V dated 23.03.2022.

Sd/-

Dy. Registrar Purchase

BIT Mesra Ranchi-835215