

COLLEGE OF ENGINEERING KARUNAGAPPALLY (Govt. of Kerala, Managed by IHRD) Thodiyoor P.O, Karunagappally, Kollam -690 523, Kerala Ph:+91 0476-2665935,2666160 Fax:+91 476 2665935 Web: <u>www.ceknpy.ac.in</u> principal@ceknpy.ac.in, cekarunagappally.ihrd@gmail.com



SHORT TENDER NOTICE

No. P/323/2020-21/CEK (9)

Date: 18/02/2021

Sealed Tenders are invited for supply of Flow Measuring Items for FM and HM lab in Mechanical Department.

The envelopes containing the tender should bear the superscription "No.P/323/2020-21/CEK (10)- **Tender for Flow Measuring Items**" and should be addressed to The Principal, College of Engineering Karunagappally, Thodiyoor P O, Kollam Dist., Kerala- 690523. Tender forms can be procured either from the college office on all working days from 20/2/2021, 9.30AM to 05/03/2021, 10AM or can be down loaded from the college website www.ceknpy.ac.in.

Last date for receipt of tenders will be on 05/03/2021 at 11. 00 AM. Late tenders will not be accepted. The tenders will be opened at Principal's Office, College of Engineering Karunagappally on 05/03/2021 at 12.00 Noon in the presence of tenderers or their authorized representatives who may be present at that time.

Intending tenderers may, on application to the **Principal**, **College of Engineering Karunagappally, Thodiyoor P O, Kollam Dist., Kerala, 690523** obtain the requisite tender forms on which tenders should be submitted. Application for the tender form should be accompanied by a cash remittance of **Rs.1500/- plus Rs.270/- GST plus Rs.15/- Kerala Flood Cess** which is the price fixed for a form/set of forms and which is not refundable under any circumstances. The amount can be remitted by way of DD drawn in favour of the Principal, College of Engineering Karunagappally. The tender forms are not transferable. **EMD amount @ 1%** of the total cost should be submitted by DD along with the agreement. A security deposit @ 5% will be submitted by the Successful tenderers which have to be remitted within 21 days after issuance of supply order. Sale of tender forms will be closed at **10AM on 05/03/2021.** Cheques, postage stamp, etc will not be accepted towards the cost of forms, nor will the forms be sent by V P P. Duplicate tender forms, if required will be issued at Rs.893/- per copy). Specifications of the items are shown below.

1		Flow Measuring Items	
Sr. No	Item Name	Specifications	Qty (Nos)
1	Bernoullis	BERNOULLI'S APPARATUS SPECIFICATIONS:	1
	Apparatus	Pump set : 0.5 HP, 1Ph, ISI mark, Monoblock, Make: Kirloskar /CRI/CG/Equavalent	1
		Sump tank : 1200 x 300 x 400 mm, SS304	
	19	Collecting Tank : 300 x 300 x 400 mm, SS304 Header Tanks : 200 x 200 x 500 mm, SS304	
	1.	Duct : A converging-Diverging duct with varying cross- section, SS / Acrylic	
		Head Measurement : Graduated Glass tube Piezometers at various points of the duct -8 nos	
		Piezometer: A graduated glass tube (graduation in cm)Experimental Capability:Actual Discharge, Total head, Velocity headManual:Self-explanatory Instruction manual with sample calculationPipelines:B class pipes with fittings	
		Valve: SI brand for flow control, Gun metal imported ball valve for tank drain. Gun metal foot valve ISI brand	
		Frame work mounting: Mounted on frame work & completely fitted with	
		all the above items as self contained unit suitable for operation without any foundation.	
		Control panel : MS angle stand to house GEM/HPL make main Switch with L&T starter.	-16-
		Installation including wiring: The supplier should install the	
		equipment with necessary foundation, if required. The necessary wiring from	
	1.00	the electric power point provided in the lab at a maximum distance of 5m.	
_	Calibration	Manual : Self-explanatory Instruction manual with sample calculation	
	Test Rig for	CALIBRATION TEST RIG FOR ORIFICEMETER and	1
	Orifice meter	VENRURIMETER SPECIFICATIONS: (combined set up)	
	and Venturi	Calibration Test Rig for Orifice meter	
	meter	Pump set : 0.5 HP, 1Ph, Mono block, Make: Kirloskar /CRI/CG/Equivalent	
-		Sump tank : 1200 x 300 x 400 mm, SS304	
		Collecting Tank : 300 x 300 x 400 mm, SS304 or	
		Orifice meter : An Acrylic body Orifice, size:25 x 12.5 mm or Gun metal corner tapping orifice meter made as per ASME standard of size 20mm and 25 mm	
		Head Measurement : Acrylic body Manometer, 150-0-150 mm with Mercury	
		Piezometer: A graduated glass tube (graduation in cm)Experimental Capability: Actual & Theoretical Discharge, Co-Efficient of Discharge	
		Manual : Self explanatory Instruction manual with sample calculation Pipelines : B Class G I Pipe with fittings , flow control gate valves and	
	and the second second	mercury manometer(With mercury) made of brass	
		Piezometer fittings : ISI brand brass components	
		Pressure gauge : Made of ISI gun metal	

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-		Glass tube fitting : ISI brand gun metal	
		Valve: Gunmetal valve ISI brand for flow control, Gun metal imported ball	
		valve for tank drain.	
		Gun metal foot valve ISI brand	
		Frame work mounting: Mounted on frame work & completely fitted with	
		all the above items as self contained unit suitable for operation without any	
		foundation.	
		Control panel : MS angle stand to house GEM/HPL make main Switch	
		with L&T starter.	
		Installation including wiring: The supplier should install the	
		equipment with necessary foundation, if required. The necessary wiring from	
		the electric power point provided in the lab at a maximum distance of 5m.	
		Manual: Self-explanatory Instruction manual with sample calculation	1.1
		Manual: Self-explanatory instruction manual with sample calculation	
3	Flow through	FLOW THROUGH ORIFICE AND MOUTH PIECE APPARATUS	1
2		SPECIFICATIONS:	
	Mouth Piece		
	Apparatus	Pump set : 0.5 HP, Monoblock, ISI, Make: Kirloskar /CRI/CG/Equivalent	
		Sump tank : 1200 x 300 x 400 mm, SS304	
		Collecting Tank : 300 x 300 x 400 mm, SS304	
		Supply Tank : 300 x 300 x 600 mm, SS304	
1.1	1	Mouth Pieces : 3 different types of Mouthpieces made of Brass /SS	
		Head Measurement : A Vernier depth gauge with slider attachment	
		(Pointer gauge)	
12		Piezometer: A graduated glass tube (graduation in cm)	
		Experimental Capability: Actual Discharge, Co-Efficient of Discharge by	
	1.	Constant/	
		Variable Head method	
		Set of Orifice: Made of SS (3 nos). Dia of 10 mm,12 mm & 15 mm	
		Hook gauge: Made of brass with gear arrangement for fine movement, with	
		vernier scale for X and Y axis measurement.	
		Glass tube fitting : ISI brand gun metal	1.1-1
		Valve : ISI brand for flow control, Gun metal imported ball valve for tank	
	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	drain.	
		Gun metal foot valve ISI brand	
		Frame work mounting: Mounted on frame work & completely fitted with	
	1	all the above items as self contained unit suitable for operation without any	
		foundation.	
		Control panel : MS angle stand to house GEM/HPL make main Switch	
		with L&T starter	
		Installation including wiring: The supplier should install the	
		equipment with necessary foundation, if required. The necessary wiring from	
		the electric power point provided in the lab at a maximum distance of 5m.	
		Manual : Self-explanatory Instruction manual with sample calculation.	
4	Flow through	FLOW THROUGH NOTCH APPARATUS SPECIFICATIONS:	1
1	Notch		
	Apparatus	Pump set: 0.5 HP, 1Ph, Monoblock, ISI Make: Kirloskar	
	Apparatus	/CRI/CG/Equivalent	
		Sump tank : 1200 x 300 x 400 mm, SS304	

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12	12201	Collecting Tank : 300 x 300 x 400 mm, SS304	
	Transa (Open channel : 1200 x 200 x 200 mm, SS304	
	10.00	Notches : Triangular Notch, Rectangular Notch made of brass sheet	
		Head Measurement : A Depth Vernier scale attachment	
		Piezometer : A graduated glass tube (graduation in cm)	
	1.2.2.2.2	Experimental Capability: Actual Discharge, Co-Efficient of Discharge	
		Hook gauge: Made of brass with gear arrangement for fine movement, with	-
		vernier scale for X and Y axis measurement.	
	-	Glass tube fitting : ISI brand gun metal	
	1.1	Valve : valve ISI brand for flow control, Gun metal imported ball valve for	
		tank drain .	
		Gun metal foot valve ISI brand	
		Frame work mounting: Mounted on frame work & completely fitted with	
		all the above items as self contained unit suitable for operation without any	
		foundation.	
		Control panel : MS angle stand to house GEM/HPL make main Switch	1.20
		with L&T starter.	
		Installation including wiring: The supplier should install the	
		equipment with necessary foundation, if required. The necessary wiring from	
		the electric power point provided in the lab at a maximum distance of 5m.	
5	Pipe friction	Manual: Self-explanatory Instruction manual with sample calculation PIPE FRICTION APPARATUS SPECIFICATIONS:	1
5	Apparatus		1
	Apparatus	Pump set : 0.5 HP, 1Ph, Monoblock, Make: Kirloskar /CRI/CG/Equavalent	
		Sump tank : 1200 x 300 x 400 mm, SS304	
	and the second second	Collecting Tank : 300 x 300 x 400 mm, SS304	1. A.
		Pipes : 3 different sizes of pipes, ¹ / ₂ ", ³ / ₄ " and 1" with	1.1
		pressure tapings at 3 meter distance	
		Head Measurement : Acrylic body Manometer, 150-0150 mm with	
		Mercury	
		Piezometer : A graduated glass tube (graduation in cm)	
		Experimental Capability: Actual Discharge, Friction factor	
		Manual : Self-explanatory Instruction manual with sample	
		calculation	
		Glass tube fitting : ISI brand gun metal	
		Valve : valve ISI brand for flow control , Gun metal imported ball valve for	
	-	tank drain .	
		Gun metal foot valve ISI brand	
		Frame work mounting: Mounted on frame work & completely fitted with	
		all the above items as self contained unit suitable for operation without any	
		foundation.	
		Control panel : MS angle stand to house GEM/HPL make main Switch	
		with L&T starter.	
		Installation including wiring: The supplier should install the	
		equipment with necessary foundation, if required. The necessary wiring from	
		the electric power point provided in the lab at a maximum distance of 5m.	
		Manual: Self-explanatory Instruction manual with sample calculation	
		Vigning · Salt_avalanatory instruction monula instruction and instruction	

6	Pelton	Pelton turbine: Turbine power output 5 hp .The turbine cups and nozzles	1
	Turbine	are made of stainless steel.	
		Loading device: Cast Iron brake drum of 300 diameters with water cooling	
	In the second second	arrangement. Channel loading frame with screw rod and 2 nos spring	
	1.1.1	balances.	
		Pump: 20 hp, 2880 rpm, 3 phase reputed ISI brand with discharge of 750	
		LPM at 50 m head.	
		Flow measuring device: Gun metal venturimeter made as per ASME	
	and the second second	standard with 1m length mercury manometer with mercury. The manometer	
		chambers made of brass with brass cocks.	
		Tanks : All tanks are made of 3mm MS Sheet with water repellent FRP	1.1
	1.0	leak proof lining with the following size : 1500x1200x500 mm Pipelines	
		and valves : MS pipe of 4 mm thickness welded with flanges . Valves	
		made of gun metal ISI make.	
44		Pressure gauge (for discharge measurement) : ISI brand make 4" dial, 0 -7	
		kg per centimeter square Digital RPM indicator with sensor.	
	The state of the local division of the local	Control panel : MS angle stand to house SIEMENS make main Switch	
		with L&T star delta starter & MCB for overload protection including its	
		installation and all earthing.	100
		Installation including wiring: The supplier should install the	
		equipmentwith necessary foundation, if required. The necessary wiring from	
	and the party of	the electric power point provided in the lab at a maximum distance of 5m.	
	"shifting" places	Manual : Self-explanatory Instruction manual with sample	
		calculation	

		Terms and conditions
Warranty	:	Minimum 3 years onsite full warranty.
Price	:	Including Ex Factory price, excise duty, packing and forwarding, transportation, loading & unloading, insurance, other local costs incidental to delivery, installation and warranty/ guaranty commitments
Payment	:	100% payment on receipt and acceptance of goods by the consignee
Delivery Schedule	:	The material should be supplied within 30 days from the date of placement of Purchase Order.

Withdrawal from the tender after it is accepted or failure to execute agreement will entail cancellation of the order forfeiting the EMD and supply being entrusted to another firm.

No representation for enhancement of price once accepted will be considered. Any attempt on the part of bidders or their agents to influence the officers concerned in their favour by personnel canvassing will disqualify the bidders.

If any license or permit is required, bidder must specify in their tender and also state the authority to which application is to be made. The rates quoted should be inclusive Ex Factory price, excise duty, packing and forwarding, transportation, loading & unloading, insurance, other local costs incidental to delivery and warranty/ guaranty commitments etc. which may become payable by the contractor under existing or future laws.

Payment will be made after the successful installation of the equipments and completion of training.

Special conditions if any, attended with the tenders of the bidder will not be applicable.

Every bidder should send along with their tender an EMD amount @ 1% of the total cost by DD payable at Karunagappally. If government have exempted any firm from furnishing the EMD they should produce relevant documents along with tender.

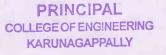
Application for the tender form should be accompanied by proof of remittance of the cost of tender form with GST and the same will not be refunded under any circumstances.

Principal College of Engineering Karunagappally reserves the right to reject any tender without assigning any reason thereof. The college will also have the right to accept the rate quoted for any of the items in a tender and to reject the others.

PRINCIPAL

Place: College of Engineering Karunagappally

Date: 18/02/2021



COLLEGE OF ENGINEERING

KARUNAGAPPALLY-KOLLAM

KERALA-690518

T EN D E R

Containing General Conditions of Contract and

Schedule for the supply of

Name of Tenderer Address Signature of Tenderer

Last date and time for the receipt of tenders



FORM OF TENDER

Sir,

I/we hereby tender to supply, under the annexed general conditions of contract, the whole of the articles referred to and described in the attached specification and schedule, or any portion therof, as may be decided by the Principal, College of Engineering Karunagappally, Kollam Dist at the rates quoted against each item. The articles will be delivered within the time and at the places specified in the schedule.

I/We/am/are remitting/have separately remitted amount of Rs.....

......as earnest money.

Yours faithfully

(Signature).....

(Address)

Date.....



Sealed tenders are invited for the supply of the materials a specified in the schedule below.

1. The tenders should be address to the officer mentioned below in a sealed cover with the tender number and the name shown below duly superscripted on the cover

2. The tenders should be in the prescribed form which can be obtained from the officer mentioned below on payment of the price which is also noted below. Duplicate copies of tender forms will also be issued at the rate specified below. The cost of tender forms once paid will not be refunded. Tenders which are not in the prescribed form are liable to be rejected. The rates quoted should be only in Indian currency, tenders in any other currency are liable to rejection.

3. Intending tenders should send their tenders so as to reach the officer mentioned below, on due date and time(noted below). No tender received after the specified date and time will be accepted on any account. The rate will be considered firm for acceptance till the date mentioned below. Tenders with price variation are liable to be rejected.

4. Every tender should send along with his tender, an earnest money of one per cent of the total cost of the articles tender for (rounded to the nearest rupee) subject to a minimum of Rs.30. The amount may be paid by demand draft (crossed) on the Karunagappally branch of State Bank of India drawn in favour of the officer mentioned below. The earnest money of the unsuccessful tenders are settled; but that of the successful tenders will be adjusted towards the security that will have to be deposited for the satisfactory fulfilment of the contract. No interest will be paid for the earnest money deposited

5. The tenders will be opened on the appointed day and time in the officer of the Principal in the presence of such of those tenders or their nominees who may be present at that time.

6. If any tenders withdraw his tender before the expiry of the period fixed for keeping the rates firm for acceptance, the earnest money, if any, deposited by him will be forfeited to the Institution or such action, taken against him as the Principal thinks fit.

7.Tenders shall invariably specified in their tender the delivery conditions including the time required for the supply of articles tendered for. 8. (a) The tenders shall clearly specify whether the articles offered bear Indian Standards Institution Certification Mark or not. In such cases, they shall produce copies of certification mark along with their tender in support of it.

(b) The tenders shall clearly specify whether the goods are offered from indigenous sources, from imported stocks in India or from foreign sources to be imported under a licence. The Principal reserves the right to reject offers for import goods if the import trade control policy in force at the time of award of the contract prohibits or restricts such imports

9 The final acceptance of the tenders rests entirely with the Principal who does not bind himself to accept the lowest or any tender. But the tenders on their part should be prepared to carry out such portion of the supplies included in their tenders as may be allotted to them.

10. Nevertheless, the successful tenders shall also execute an agreement for the due fulfilment of the contract within the period to be specified in the letter of acceptance. The contractor shall have to pay all stamp duty, lawyers' charges and other expenses incidental to the execution of the agreement. Failure to execute the agreement within the period specified will entail the penalties set out in para 12 below.

11.(a) the successful tenderer shall, before signing the agreement and within the period specified in the letter of acceptance of the tender, deposit a sum equivalent to 5 percent of the value of the contract as security for the satisfactory fulfilment of the contract less the amount of money deposited by him along with his tender. The amount of security may be deposited in the manner prescribed in clause 4 supra. If the successful tenderer fails to deposit the security and execute the agreement as stated above, the earnest money deposited by him will be forfeited to the Institution and the contract arranged elsewhere at the defaulter's risk and any loss incurred by the Institution account of the purchase will be recovered from the defaulter who will, however, not entitled to any gain accruing thereby

(b) In cases where a successful tenderer after having made partial supplies fails to fulfil the contracts in full, all or any of the materials not supplied may at the discretions of the Purchasing Officer, be purchased by means of another tender quotation or by negotiation from the next higher tenderer who had offered from the next higher tenderer who had offered to supply already and the loss, if any, caused to the Institution shall thereby together with such sums as may be fixed by the Institution towards damages be recovered from the defaulting tenderer.

12. The security deposit shall subject to the conditions specified herein, be returned to the contractor within three-months after the expiration of the contract, but in the event of any dispute arising between the Principal and the Contractor, the Principal shall be entitled to deduct out of the deposits of the balance threof, until such dispute is determined the amount of such damages, costs, charges and expenses as may be claimed. The same may also be deducted from any other sum which may be due at anytime from the Institution to the contractor. In all cases where there are guarantee for the goods supplied the security deposit will be released only after the expire of the guarantee period.

13. M1 payment to the contract will be made by the purchasing officer in due course by cheque only an any schedule bank at Karunagappally decided by the Principal.

14. Payment will be made only after the supplies are completed by the contractor and taken to stock of the College of Engineering Karunagappally, Kollam after due verification. No part Payment will be made

15. (a) In case the contractor fails to supply and deliver any of the said articles and things within the time provided for delivery of the same, or in case the contractor commits any breach of any of the covenants, stipulations and, agreements herein contained, and in his part to be observed and performed then and any in such case, it shall be lawful for the Principal (if he thinks fit to do so) to arrange for the purchase of the said articles and things from elsewhere or on behalf of the Principal, College of Engineering by an order in writing under the hand of the purchasing officer put an end, to this contract al-id in case the Principal, College of Engineering shall have incurred , sustained or been put to any, costs, damages, or expenses by reason of such purchase or by reason of this contract having been so put an end to or in case any difference in price, compensation, loss, costs, damages, expenses or other money shall then or any time during the continuance of this contract by payable by the

contract to College of Engineering under any by virtue of this contract, it shall be lawful for the Principal, College of Engineering Karunagappally from and moneys for the time being payable or owing to the contractor from the Principal under or by virtue this contract or otherwise to pay and reimburse the Principal all such costs, damages and expenses they may have sustained, incurred or been put to by reason of the purchase made elsewhere or by reason of this contract having been so put an end to as aforesaid and also all such difference in price, compensation, loss, costs, damages, expenses and other moneys and shall for the time being be payable by the contractor aforesaid.

(b.) In case any difference or dispute arises in connection with the contract, all legal proceedings relating to the matter shall be instituted in the Court within whose jurisdiction the purchasing officer voluntarily resides.

16. (a) No representation for enhancement of rates once accepted will be considered.

(b) In the case of imported goods, when the price accepted is the ex-site price quoted by the tenderer, the benefit of any reduction in the c.i.f. price should inform to the Principal

17. Tenders should be prepared to accept orders subject to the penalty clause for forfeiture of security in the event of default in supplies or failure to supply within the stipulated period

18. Telegraph quotations will not be considered unless they give details of price and are immediately followed by confirmation with full relevant details posted before the due date of the tender.

19.(a) The prices quoted should be inclusive of all taxes, duties, cesses, etc...Which are or may become payable by the contractor under existing or future laws or rules of the country of origin/supply or delivery during the course of execution of the contract.

(b) In case payment of customs/excise duty is to be made by the Purchasing Officer, the Purchasing Officer will pay the duty on the unloaded invoice price" only in the first instance any difference being paid when the tendere produces the final assessment orders later

20. Special conditions, if any, of the tenderers attached with the tender will not be applicable to the contract unless they are expressly accepted in writing by the purchaser

21. The tenderer should send along with his tender an agreement executed and signed on Kerala Sm. Paper worth Rs.200/- specimen form of agreement is annexure to this tender, Tenders without the agreement on stamped paper will be rejected outright.



Superscription Tender No.	for
Due date and time for receipt of tender :	
Date and Time for opening of tender :	
Date up to which the rates are to be firm :	
Price of tender from :	
Price of duplicate copy :	
Address of Officer from whom tender forms are	
To be obtained and to whom tenders are to be sent:	Principal,
Name of Office :	College of Engineering Karunagappally, Thodiyoor P O, Kollam, KERALA, PIN-690518 : Do
Name & designation of the Purchasing Officer :	Do
SCHDULE OF	MATERIALS
SI Specification Quality Unit Rate An No.	nount CGST SGST Total
Separately	attached

Period within which goods should be deliveredRates should be quoted for delivery
supply order: Immediately after the receipt of theFOR College of Engineering, Karunagappally, Kollam

at Department Stores.....

Whether samples essentials : If Required

Other special conditions the stores in good condition

: Payment will be effected after receipt of

If required

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ANNEXURE

AGREEMENT

Articles of agreement executed on this the
lay ofTwo
housand andBETWEEN the
Principal College of Engineering Karunagappally, hereinafter referred to as the Institution of the one
part and Sri(H,E name and address of the tenderer)
Hereinafter referred to as 'the bounden of the other part.

WHEREAS in response to the Notification No.....

dated..... the

bounden has submitted to the a tender for the.....specified herein

subject to the terms and conditions contained in the said tender.

WHEREAS the bounden has also deposited with the Institution sum Rs...... as earnest money for execution of an agreement undertaking the due fulfilment of the contract case his tender is accepted by the Institution.

NOW THESE PRESENTS WITNESS AND IT IS HEREBY MUTUALLY AGRED AS FOLLOWS:

- 2. In case the bounden fails to execute the agreement as aforesaid incorporating the terms and conditions governing the contract, the Institution shall have power and authority to recover from the bounden any loss or damage caused to the Institution such as may be determined by the Institution by appropriating the earnest money deposited by the bounden and if earnest is found to be inadequate the deficit amount may be recovered from the bounden and his properties movable and immovable in the manner hereinafter contained.
- 3. All sums found due the Institution under or by virtue of this agreement shall be recoverable from the bounden and his properties movable and immovable as decided by the Institution.