### GOVT. COLLEGE OF ENGINEERING AND RESEARCH, AWASARI

Awasari(Khurd) Tal: Ambegaon, Dist.Pune-412 405

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No. GCOEARA/Store/2017-18/ 3\2\_\_\_

Dat 2 2 JAN 2018

#### INVITATION FOR QUOTATION

Quotation for supply of equipments (for Mechanical Engineering & Workshop)

Send your quotation for the following items on the terms and conditions listed below, mentioning our reference letter number, date and due date of quotation on your sealed envelope, on or before **01.02.2018** at 3.00 pm. (The quotations will be opened on 02.02.2018 at 11 AM)

Separate quotations are to be submitted for each the items mentioned below and such envelope must be super scribed with enquiry number and date & time of submission of the quotation for that item.

Sr.No.	Enquiry No.	Specification	Qty.	Estimate Cost in Rs.		
1	312-1	Apparatus for Determination of Cp and Cv of air( Ideal Gas) Digital Type Instrument	1	25000		
2	312-2	Pelton Turbine Test rig, Carallel	1	208980		
3		Fransic Turbine Test rig, c	1	237980		
4	312-4	Plotter (X-Y), Size- Ao-A4	1	170000		
5	312-5	Surface Roughness Tester .	1	110000		
6	312=6	Recirculating type Air Conditioning Trainer	1	145000		
7	312-7	Sand Mixer, moulding sand mixing	1	140000		
8	312-8	Table or Surface grinding Machine	1	120000		
		Detail scope of supply is as per enclosed sheet		5		
		टिप- निविदा दोन लिफाफा पध्दतीने सादर करणे आवश्यक आहे. (तांत्रिक व व छाननीमध्ये पात्र ठरतील त्यांच्याच वाणिज्यिक निविदा उघडण्यात येतील. तांत्रिक कागदपत्रांची पाहणी करण्यात येईल.  अ) निविदाकाराच्या आस्थापनेचे नोंदणी प्रमाणपत्र. ब) GST रिजस्ट्रेशन प्रमाण GST भरल्याचा पुरावा. ड) निविदेतील वस्तू उत्पादित करीत असल्याचा पुरावा आदेश, देयके). इ) निविदेतील वस्तूचे निविदाकाराचे / उत्पादकाचे Specifica पुरवठा करण्यात येणा-या यंत्रसामग्री / उपकरणांच्या क्वालीटी व विक्री पश्चात स्वतः उत्पादक नसेल तर मुळ उत्पादकाचे बाबतीत वरीलपैकी सर्व कागदपत्रे त वितरक प्रमाणपत्र जोडणे आवश्यक आहे. * वाणिज्यिक निविदेच्या लिफाप्या दर अपेक्षित आहेत.	म निविदा लि गपत्र. क) डि ा (इतर आस् ntion shee सेवेबाबत हम् सिच निविदा	हा लिफाफ्यामध्ये खालील ह) डिसेंबर २०१७ पर्यंत आस्थापनांचे पुरवठा sheet / leaflet. फ) हत हमीपत्र. ज) निविदाकार विदाकाराचे मुखत्यारपत्र /		

#### **Terms & Conditions**

- Taxes Inclusive / if extra clearly mention the percentage. 1 2 Delivery period -
- 3 Payment Terms -
- 4
- Quotation Validity -Mention clearly
- 5 Make & Model -
- 6 Warranty - 2 Years from date of installation
- 7 Guaranty-
- 8 Delivery Charges - Free / if extra mention clearly.
- 9 The part supply and its bill will strictly not be entertained.
- 10 If you fail to supply the stores within the specified period, the order will be treated at cancelled without any information.
- 11 The material will be accepted subject at approval(after inspection of the material), If rejected it will be returned to you at your cost.
- 12 The material to be supplied should be strictly according to the specification only.
- 13 Please attach copy of your shop registration certificate and GST Registration Number alongwith your quotation, without which your quotation will not be accepted.

Principal Govt.College of Engineering & Research Awasari Awasari(khurd)

# Mechanical Engineering Department

Name of Lab- Thermodynamics

Name of Equipment- Apparatus for determination of Cp & Cv of air(Ideal Gas)

## Specification-

- -Digital type
- -Digital Temperature Indicator.
- -Digital Pressure Gauge of Capacity- 2kg/cm<sup>2</sup>.
- -Valve for on/off of air from accumulator.
- -Accumulator for air.
- -Foot pump for filling air.

खरेदी प्रक्रिया प्रभारी अधिकारी

शासकीय अिंिकि व संशोधन महाविद्यालय अवसरी (खुर्द), ा ्रात्यात, जि.पुणे.४१२ ४०५

## 2 Pelton turbine test rig

Pelton wheel turbine test rig developing about 3.75 kW power at 45 mtr head and 625 LPM discharge. It should consist of

- 1) Casing: Sturdy C. I. casing with transparent window for visualization.
- 2) Runner: 10" dia. G.M. runner fitted with 18 Numbers of electroplated buckets.
- 3) Nozzle & Spear Assembly: 1 No. Made of brass, designed for smooth flow with stainless steel spear for efficient operation.
- 4) Centrifugal Pump Unit:

i. Head

: 45 mtr.

ii. Discharge: 11 LPS.

iii.Power

: 15 H.P.

iv. Speed

: 2880 RPM | I No.

5) Loading Unit: 1No.

Turbine should be directly coupled to Rope Brake Pulley with drum cooling. Spring balance & dead weights.

6) Flow Measurement Unit: 1 No.

A 2.5" Venturimeter with mercury differential manometer.

7) Sump Unit: 1 No.

M.S. C.R.C. sheet metal sump of 600 lit. capacity with inside fiber lamination and drain plug. 6. Suction & Delivery Piping and fittings are provided with Pressure gauge, foot valve & flow control valve. 1 No.

- 8) Control Panel Unit: 1 No.
  - i. Digital Speed Indicator with speed sensor.
  - ii. Starter Switch with overload relay.
- 9) Whole unit should have been fitted on strong and sturdy supporting stand with appropriate colour combination.

रत्वसेती प्रक्रिया अभारी अधिकारी शासकीय अभियोतिको व वंशोपन महाविशासक अवसरी (सुर्द), सा.आंक्सार, जि.पुजे.४१२ ४०५

# 3)

### Francis turbine test rig

Francis turbine test rig developing about 3.75 kW power at 1.5 bar pressure and 35 LPS discharge. It should consist of

1) Casing: Sturdy C. I. Scroll casing with draft tube.

2) Runner: Mixed flow type specific G.M. runner fitted inside the casing.

3) Wicket Gate Assembly: 1 No. - Of Gunmetal designed for efficient operation by a hand wheel through a link mechanism. Guide vanes should be working inside the turbine with external dummy.

4) Centrifugal Pump Unit: 1No.

i. Head : 14 mtr.ii. Discharge : 35 LPS.iii. Power : 15 H.P.iv. Speed : 2880 RPM

5) Loading Unit: 1 No.

Turbine should be directly coupled to Rope Brake Pulley with drum cooling, spring balance & dead weights.

6) Flow Measurement Unit: 1 No.

A 4" Venturimeter with mercury differential manometer.

7) Sump Unit: 1 No.

M.S. C.R.C. sheet metal sump of 700 lit. capacity with inside fiber lamination and drain plug.

8) Suction & Delivery Piping and fittings should have been provided with Pressure gauge, foot valve & flow control valve.

9) Control Panel Unit: 1 No.

i. Digital Speed Indicator with speed sensor.

ii. Starter Switch with overload relay.

10) Whole unit should have been fitted on a strong and sturdy supporting stand with appropriate colour combination.

खरेदी प्रक्रिया प्रभारी अधिकानी शासकीय अभियांत्रिकी व रांशोधन नहाविद्यालय अवसरी (खुर्द), ता.आंबेनाय, जि.पुणे.४१२ ४०५



## X-Y plotter (Ink jet type, colour plotter)

- 1. Size: A0-A4
- 2. Resolution in dpi:2400\*1200
- 3. Memory in Mb:256
- 4. Ports: Ethernet
- 5. Hard Disk:40 GB



### Recirculating type air conditioning trainer

### PARAMETER DESCRIPTION

Compressor - Hermetically sealed. Make: EMFRSON /Equivalent

Condenser - Forced Air cooled

Drier / filter- Dry-All makes /Equivalent

Rotameter to be Provided

Diverting Valves - 1/4" Hand valves

Expansion Device - Capillary tube.

Capillary tube - MOC Copper

Evaporator - Forced air cooled

Energy meters to be Provided

Condenser Fan - GE/ MAGIC or equivalent make Axial flow type

Evaporator Fan - Centrifugal type (Forward curved vanes)

Psychrometric Chamber fitted with motor blower. & heater

Preheater 1000 Watts Finned type

Dehumidifier or Reheater - 1000 Watt Finned type

Humidifier - Immersed tube type heater with pressure cooker 1 kW

Temperature Indicator - 6 Channel Facility with digital display

HP/LP Cut out Make - Indfoss/Equivalent

Pressure Gauges - 2 No.s, 2 1/2 " Dial type

Anemometer to be Provided



## Surface roughness tester

Accuracy (in) 5% of reading + 4μin, Cutoff Lengths 0.03" ± 15%. Filter 2CR Measuring Range Ra: 1600μin Rz, Rv, Rp, Rt: 7800μin Pick-up Stylus Piezoelectric, Roughness Parameter Ra, Rz, Rv, Rp, Rt Tracer Tip Diamond, Radius 200μin, Tracing Length 0.2" Tracing Speed 0.08"/sec

Jof 22.01-18

खरेढी प्रक्रिया प्रभारी अधिकारी

Sr.No.	Equipment name and specification
7	Table Grinding Machine (Surface Grinding) Max. grinding length: 750mm, Max. Grinding width: 250mm, Centre distance of wheels over Table: 125mm, Longitudinal travel: 12m/min, Wheel size: 250mm x 25mm x 762mm, Max. speed of wheels: 2800 RPM Accessories: Magnetic Separator, Universal Machine Vice, Wheel dresser overhead, grinding wheel, machine lamp, wheel flange puller, wheel balancing mandrill, table guard with fitting, manual magnetic chuck, coolant equipment, dust and exhaust equipment unit.
3	Sand Mixer (Moulding sand mixing) Small size, Batch Capacity 50 Kg, RPM of impeller: 33.4RPM, Electric motor 3HP, diameter of pan (mm-ft): 750-2.5'
1	High Coood Described Last

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शासकीय अभियांत्रिकी व संशोधन महाविद्यालय अवसरी (खुर्द), ता.आंबेगाव, जि.पुणे.४१२ ४०५