



PANDIT DEENDAYAL ENERGY UNIVERSITY
Raisan Gandhinagar – 382426, GUJARAT,INDIA

Tender Notice

Sealed Tender bids are invited from reputed / authorized supplier/ manufacturer for supply installation and commissioning of the following items for PANDIT DEENDAYAL ENERGY UNIVERSITY, Gandhinagar, so as to reach the undersigned at the address given below latest by the date and time specified here in below.

Tender No.	Lab. Name	EMD(Rs.)	Estimated Cost
PDEU/SOT/MP1 lab/Mech dept/BPT/22-23/WT/172	MP-1	Rs.32,000.00	Rs.32,00,000.00

Bid documents containing complete details, specifications, terms and conditions etc can be downloaded from the PDEU website [http:// www.pdpu.ac.in](http://www.pdpu.ac.in).The download tender document (PDF Format) comprises:

- Part – I : Tender Notice
- Part – II : Technical Specifications (Schedule-'A')
- Part – III : Commercial Terms & Conditions

The Technical Bids so received, shall be opened, on the date and time specified here in below at the PANDIT DEENDAYAL ENERGY UNIVERSITY, Raisan Village, Gandhinagar in the presence of the bidders or their authorized representatives those wish to be present.

The Financial bids of only eligible Tenderer(s) shall be opened. The date and time of opening the financial bids shall be announced on our website after scrutiny of the Technical bids.

Important Dates:

Last date and time for submission of Bid	15.12.2022 up to 5.00 p.m.
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Important Instructions:

1. The offer shall be submitted on downloaded tender document only.
2. The Main envelope should contain followed **four envelopes** duly sealed.
 - (a) **EMD Envelope** : This should contain Demand Draft (D.D) for EMD document in favour of PANDIT DEENDAYAL ENERGY UNIVERSITY payable at Ahmedabad.

(b) **Technical Bid** : Schedule- 'A'

(c) **General Commercial Terms & Conditions**

(d) **Price Bid** : (Schedule 'B') should contain only Price Bid.

All the four envelopes should be super scribed with tender No., date of opening and Name of the bidder.

3. Offer without EMD is liable to be rejected forthwith.
4. The Tender, duly completed, should be sent by RPAD or Speed Post or Courier Service (Hand Delivery is not acceptable) so as to reach latest by the date and time specified here in above. Tender received after the due date and time is liable for rejection irrespective of delay due to postal service or any other reasons.
5. Any technical query, information clarification pertaining to this tender may be referred to Dr. Vishvesh Badheka EMail: vishvesh.badheka@spt.pdpu.ac.in or purchase@pdpu.ac.in
6. Please mentioned the Equipment name on the Main Envelope.

PDPU reserves right to reject any OR all tenders without assigning any reason.

Sd/-

Registrar
PANDIT DEENDAYAL ENERGY UNIVERSITY
Raisan Gandhinagar – 382426, GUJARAT,INDIA

PART-II

SCHEDULE- 'A'

DETAILS TECHNICAL SPECIFICATION FOR BOTTOM POURING TYPE STIR CASTING MACHINE

Sr No.	Name of the Equipment	Technical Specification	Qty
1	BOTTOM POURING TYPE STIR CASTING MACHINE	<ul style="list-style-type: none"> ▪ Type: Bottom Pouring ▪ Certification: CE - Declaration of Conformity of European Standards ▪ <u>Retort & Bottom Pouring System:</u> <ul style="list-style-type: none"> ▪ Retort: <ul style="list-style-type: none"> ▪ The retort holds the molten metal. ▪ Material: Made of stainless steel 310 grade which is highly corrosive and heat resistant ▪ Protective Sleeve: A replaceable mild steel sleeve is provided inside the S.S Retort to protect it from wear and tear while stirring at high temperature ▪ Non-Stick Coating: High-temperature non-stick coating (graphite based) will be provided along with the machine. This must be applied to the protective sleeve. ▪ Capacity: 800 gms to 2 Kg of Aluminium or Magnesium ▪ Heating System: <ul style="list-style-type: none"> • Maximum Temperature: 1000 °C • Heating Element: KANTHAL APM Coils • Heating Chamber: Made of high-temperature muffle constructed with high-temperature withstanding refractory • Insulation: High-density ceramic fiber ▪ Bottom Pouring: <ul style="list-style-type: none"> ▪ Gate valve controlled by Permanent Magnet DC Motor with 4 reduction gearbox ▪ Gate valve auto stop at OPEN & CLOSE Position ▪ Outer Shell <ul style="list-style-type: none"> ▪ Shape: Cylindrical made of thick gauge mild steel sheet ▪ <u>Stirrer Arrangement:</u> <ul style="list-style-type: none"> ○ Blade <ul style="list-style-type: none"> ▪ Type: Twin Fin blade ▪ Material: Stainless Steel 310 grade ○ Speed: <ul style="list-style-type: none"> ▪ Variable from 300 to 1200 RPM ▪ Motor: Permanent magnet DC Motor ▪ Speed control: Using DC Drive with 4 to 20 mA control ▪ Indication: Digital indication & control with accuracy of +/- 10 RPM ○ Lift: <ul style="list-style-type: none"> ▪ Type: Motorized Lift ▪ Auto cut off at extreme TOP & BOTTOM. ○ Auto LIFT: <ul style="list-style-type: none"> ▪ This facility allows the user lift the stirrer UP/DOWN while stirring automatically 	1

- **Pre-heating furnace for reinforcement (Powders):**
 - Attached in top of the Stir Casting Furnace
 - Heating chamber made of Stainless-steel tube provided with a gate valve at the bottom
 - Gate valve provided to control the flow of reinforcement into the melt.
 - **Heating System:**
 - Maximum Temperature: **800 °C**
 - Heating Element: **Nichrome Wire**
 - Heating Chamber: Made of high alumina tube constructed with high temperature withstanding refractory
 - Insulation: High-density ceramic fiber
 - **Outer Shell**
 - **Shape:** Cylindrical S.S polished tube
- **Pre-heater for Mould:**
 - Immersion type mold/die preheater is provided along with the machine
 - Portable and easy to handle
 - Max. Temperature: 450 °C
 - Dimension of the heater will vary with the type of mold you order.
- **Inert & Gas Mixing System:**
 - Ar is provided as input for maintaining Inert Gas Atmosphere
 - SF6 is provided as input for maintaining the temperature in case if the temperature shoots up because of the firing of Mg or any flammable materials added in the melt.
 - Separate S.S gas storage tank is provided to store the input gases at the set pressure
 - Digital gas mixing controller is provided to mix the input gases to a required ratio (0 to 100%)
 - Digital mass flow controller is provided for the mixed gas output to the combustion chamber. The gas flow can be adjusted from 0 to 10 LPM.
 - A gas shield is provided around the bottom pouring tube to avoid the flashing of Mg while pouring into the die.
- **Control Panel: Human Machine Interface (HMI)**
 - The human-machine interface consists of the indication & control system where all the details performed are displayed, recorded, and stored in real-time. This HMI can be Android Tablet or touch screen panel which is connected to the machine wirelessly. Users can use the HMI at 10m away from the machine. Temperature, pressure or RPM are controlled from this HMI in real-time.
 - **Display & Control:** Android Tablet
 - **Interface:** Tablet & the machine is connected through a wireless interface
 - **Software Indication, Control & Recorded Parameters**
 - Furnace or Heaters
 - Actual Melt Temperature
 - Reinforcement Temperature
 - Mold Temperature
 - Stirrer
 - Speed indication & control +/- 10 RPM
 - Stirrer vertical height control with auto cut off at extreme top & bottom
 - Bottom Pouring Gate Valve Control (OPEN/CLOSE)
 - Gas Mixing Control
 - SF6 & Ar gas mixing percent (0 to 100%)
 - Gas Pressure Control
 - Gas Flow Control: 0 to 10 LPM

- Parameters for optional attachments
 - Vacuum Die Casting
 - Vacuum Pump ON/OFF
 - Squeeze Die Casting
 - Squeeze pressure indication & control (0 to 40 Tonns)
 - Hydraulic pump control
 - Runway temperature
 - Rotary Centrifugal Casting
 - Rotor speed indication & control +/- 10 RPM
 - Extrusion Setup
 - Pressure (in metric tons) with set point control
 - Sample preheater temperature indication & control
- Temperature Sensors Used: Required K Type S.S sheathed and grounded thermocouples are used for all the heaters to sense the temperature very accurately.
- All heaters temperature are controlled by the HMI with PID based logic to attain a great control accuracy of +/- 1 °C.
- Other control Accessories:
 - Digital VAF meter is provided to indicate the power, current and voltage consumed by the machine.
 - Power control through Solid State Relays
 - Necessary HRC Fuse are provided

Attachments

Attachment-1: Vacuum Die Casting

Vacuum die casting attachment consists of the below:

- Vacuum pump
- Vacuum storage tank
- Die holding chamber & die
- Vacuum control and indication mechanism

The vacuum pump is coupled with the vacuum storage tank made of leak-proof stainless steel. The vacuum pump creates a high vacuum (700 mmHg) on this storage tank. Both vacuum pump and storage tank is fixed on the frame on the backside of the stir casting machine. The vacuum storage tank is coupled with die holding chamber which is fixed on the main frame and sliding type as an attachment. By sliding this attachment below the bottom pouring tube, the melt is directly poured into the vertical die/mold which is placed on the airtight die holding chamber. Once the melt is poured into the die, the vacuum in storage tank is released into the die holding chamber which will create an instant high vacuum on the melt thereby sucking all the blow holes from the cast at high temperature. Thus casting defects such as porosity is reduced to a greater extent.

Specification:

- Approx. power consumption: 1 KW
- Stainless steel vacuum chamber
- Stainless steel vacuum tank
- Vacuum: 700mmHg
- Rotary Vacuum Pump
- Existing die provided can be used for vacuum die casting.

Advantages:

- ✓ Gases in the melt are reduced thereby reducing the porosity in the casting
- ✓ Excellent surface finish
- ✓ Cast density and strength is increased

- ✓ Flash is reduced

Attachment-2: Squeeze Die Casting

This is a standalone setup, an L-type connecting tube with heaters is provided for transferring the melt from the bottom pouring tube of the stir casting furnace to the squeeze casting die. Hydraulic power pack is powered by electrical motor and this power pack is capable of attaining 150 tons pressure. This power pack is coupled with a piston which is fixed on the heavy structured squeeze casting frame. This frame also houses the die/mold which is made of mild steel and capable of withstanding load upto 150 tons.. The pressure applied is directly controlled by control panel – Human Machine Interface Android Tablet. When the user wishes to perform squeeze casting, he has to fit the L- type melt flow tube below the bottom pouring tube and move the bottom pouring type stir casting machine near the squeeze casting setup. This L-type melt flow tube is made of stainless steel and heated with Runway tube heater which heats the tube for 800 °C and avoids solidification of melt in the runway tube. The temperature in Runway tube heater is controlled and maintained by PID based controller in the human machine interface. Once the melt is poured into the die, user has to press down button to bring down the piston and squeeze the melt.

- Maximum pressure of hydraulic press: 0 to 40 Tons
Runway L type tube is provided which can be connected in the bottom pouring tube of the furnace
- Runway L type tube will have a heater to avoid solidification. Maximum attainable temperature of this heater will be 800 °C.
- Power control to the heater is controlled by SSR
- Digital squeeze pressure indicator is incorporated in the furnace Human Machine Interface
- Die
 - Material: Mild Steel
 - Cast Dimension: 50mm O.D x 250mm ht

Attachment-3: Rotary Centrifugal Casting

In rotary centrifugal casting, the molten metal is poured into the rotating die/mould to form cylindrical shapes. The die/mould is coupled with electric motor, which rotates the die/mould from 100 to 1500 RPM as per the users pre-set value. By pressing the bottom pouring remote switch, the bottom pouring valve opens and the melt is poured into the die which rotates at high speed thereby creating a centrifugal force in the melt to obtain a cast in cylindrical shape. Tubes with various wall thicknesses can be formed using this attachment,

- AC/DC motor to drive the rotary die at 1400 RPM
- Variable Frequency Drive is used to adjust the speed
- Digital RPM indicator
- Rotary Cast Split Die made of mild steel to form a cylindrical rod/tube of 100mm OD x 200mm long
- Die preheater with digital temperature indication cum control is provided to preheat the die for 350 °C before casting

Advantages:

- ✓ Cylindrical cast of desired thickness and diameter can be formed
- ✓ Different wall thickness can be formed with the same mould
- ✓ Good mechanical properties and strength
- ✓ Less porosity due to die preheating
- ✓ Density of metal varies from center to the wall

Attachment-4: Ultrasonic Vibrator Horn, 2500 Watts

- **Ultrasonic Vibrator Arrangements:**
 - **Type** : Ultrasonic Liquid Processor
 - **Model** : ULP SPM Generator
 - **Ultrasonic Power** : 2500 Watts with power adjustment of 60%, 70%, 90% & 100%.
 - **Ultrasonic Frequency** : 20 KHz
 - **Horn Diameter** : 30 mm
 - Inclusive of Converter, Booster and Titanium tipped probe with full wavelength horn nearly of 250 mm for equal particle dispersion of molten Aluminium & Magnesium
 - Motorized lifting arrangement for Horn with Auto cut OFF at extreme TOP & BOTTOM.
 - Alterations will be made in the existing stir casting furnace for accommodating the ultrasonic vibrator arrangement
 - Forced air cooling arrangement will be provided to cool the ultrasonic horn
 - Water Cooling arrangement will be provided to cool the ultrasonic horn
 - **Note:** Either Stirrer or Ultrasonic Horn can be used at a single instance
 - **Accessories Provided:** Portable trolley with rigid frame structure to move this setup for dipping the ultrasonic probe into the stir casting machine.

Attachment-5: Data Acquisition System for Obtaining Cooling Curve

This data acquisition is an optional feature that can be added in the HMI of stir casting machine allowing the user to obtain the cooling curve while solidification of melt in the die. The temperature is sensed at the vertical centre at 3 different heights using thermocouple. The data obtained is displayed & recorded in real time and can be exported in MS Excel format to obtain the cooling curve. The custom built HMI Software is designed in such a way to obtain high accuracy.

- Sampling Rate : Adjustable from 1 sec to 120 secs
- Inputs : 4 nos (K Type Thermocouple)
- Temperature Sensors Used : 3 nos (as per the below fig.)
- Cast Dimension : 300 x 100 x 15mm thickness
- Spares : 3 nos (K type Thermocouple)

PART-III

GENERAL COMMERCIAL TERMS AND CONDITIONS

DEFINATIONS:

- Tenderer/Supplier/Bidder: These terms are synonym and mean the firm who intends or who has submitted offer in response to this tender.
- Tender / Bid Document: means this tender document.
- PDPU: PANDIT DEENDAYAL ENERGY UNIVERSITY having its office at Raisan Village, Gandhinagar-382007 and includes its successors and assignee.

- 1 The tenderer should thoroughly read all the clauses of the tender document before submitting the duly filled in Tender.

Tenderer shall place the following **ANNEXURES as FIRST EIGHT pages** of their Technical Bid in the following sequence.

FIRST PAGE	ANNEXURE -1
SECOND PAGE	ANNEXURE - 2
THIRD PAGE	ANNEXURE - 3
FOURTH PAGE	ANNEXURE - 4
FIFTH PAGE	ANNEXURE - 5
SIXTH PAGE	ANNEXURE - 6
SEVENTH PAGE	ANNEXURE - 7
EIGHTH PAGE	ANNEXURE - 8

2 **SUBMISSION OF BID DOCUMENT:**

PDPU follows two bid systems. Tenderer shall submit two separate bids viz.

- a) Techno – Commercial Bid (Technical Bid) **and**
- b) Price Bid as under.

(a) Technical Bid: This shall be in sealed envelope. It shall be super scribed

Technical Bid: Tender No.	Name of Bidder:
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It shall contain the following

- (i) six pages as mentioned in condition 1 above and

TENDERERS SHOULD FURNISH THE FOLLOWING DETAILS:

- [1] Technical Specifications(Part-II) and General Term & Conditions(Part -III) of Tender Document Duly Sign on each page by Authorized Signatory as token of his acceptance.
- [2] Audited Accounts of last three years of the firm.
- [3] Performance reports if any.
- [4] Consent letter from their principals to manufacture such items.
- [5] All the testing equipment MUST have been calibrated up to date.
- [6] List of customers

- (ii) All the information and supporting documents for (i) above
- (iii) Details, Documents, Literature, certificates etc. for the equipment / Material offered.

(b) Price Bid: This shall be in sealed envelope.

It shall contain offer price in the form specified in the tender document as Schedule- 'B'. The Printed Price list or price in different format will render the offer liable for rejection. **It shall be super -scribed as:**

Price Bid:	Tender No.:	Name of Bidder:
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c) EMD Envelope: This envelop shall contain the following:

Demand draft or Bank Guarantee, as the case may be, for EMD supporting document, as mentioned hereof, if bidder seeks exemption in EMD

It shall be super - scribed as :

EMD Envelop:	Tender No.:	Name of Bidder:
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d) Main Envelope: This envelope shall contain envelop of Technical bid, envelop of EMD and Price Bid. It shall be super - scribed as :

Main Envelop:	Tender No.:	Name of Bidder:
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The entire bid document (Main envelope mentioned above) should be submitted so as to reach this office not later than 02.00 P.M. on due Date as specified in the tender notice through RPAD / Speed post or Courier only

Incomplete bids and amendments and additions to bids after opening of the bids will be ignored out rightly.

The technical scrutiny committee of PDPU shall evaluate the techno-commercial view of the tender. PDPU reserves the right to open or not to open the price bid of the bidders on the basis of their past performance of their supplied materials.

The price bid of those who are techno-commercially acceptable shall only be opened.

3 PRICE EVALUATION:

Normally no price preference shall be given on any account. All tenders will be evaluated on firm price end-cost basis; The parties however shall give the detailed break-up of the end cost. If PDPU feels that there is lack of serious competition or for any other reasons, PDPU may negotiate with the bidder. PDPU's decision to accept any or all tenders shall be final and binding on all the parties. However, the DG of PDPU or the Authorized committee at its sole discretion reserves the right to negotiate with other tenderer in case the technical specification of some or all products are found to be superior.

4 EARNEST MONEY DEPOSIT: (E.M.D.)

E.M.D. is payable @1% of the value of the items offered. The EMD is payable by Demand Draft, of any Nationalized Banks, drawn in favor of the PANDIT DEENDAYAL ENERGY UNIVERSITY, payable at Ahmedabad. If the amount of EMD is more than Rs. 25000/- the same can be paid by an irrecoverable Bank Guarantee from any nationalized Bank in a standard format prescribed by PDPU (Format given in this tender document).

5 DELAYED AND LATE TENDERS:

No Tender shall be accepted / opened in any case which are received after due date and time of the receipt of tender irrespective of delay due to postal services or any other reasons and PDPU shall not assume any responsibility for late receipt of tender. Any correspondence in this matter will not be entertained.

6 PRICES:

The details of the price shall be given in Price Bid (Schedule-B) only and nowhere else. Prices quoted shall be FIRM and on F.O.R. Destination basis (i.e. PDPU,Gandhinagar). However, the Tenderer should indicate in the Price Bid, the break-up of Unit F.O.R. Destination Prices with break-up of Unit Ex-works price ,Excise duty, GST, Custom Duty, average freight, packing charges, and Insurance Charges. Tenderer should quote the Freight as well as Insurance Charges both separately as shown in price bid. Please note that payment of excise duty will be made only on Ex-Work prices. Also, please mention rate of Excise duty. If this is not specifically mentioned then PDPU will have the option to take the prices as exclusive of taxes and duties (at maximum slab rates) for the evaluation of the tenders.

The Tenderer should invariably indicate the total unit end cost price considering all their costs / calculations in the Price bid itself for each item and all sub-items if any. This is mandatory. Cost components hidden / furnished elsewhere will not be considered and will be ignored out-rightly.

Only for Traders - Tender:

[i] In case of a trader-**tender**, if the quotation is furnished for all inclusive rates and the rates of taxes and duties are indicated without indicating the amount, in such cases, the **price** is eligible for statutory variation.

[ii] Where the trader-**tender** quotes all inclusive rates without indicating the rate of Taxes and Duties included in the quoted price, the price is not eligible for any statutory variation.

7 REFUND / FORFIETURE OF E.M.D

EMD will be forfeited if (i) the tender, it covers, is withdrawn during the validity of the offer or (ii) the Tenderer fails to furnish / deposit the Performance Guarantee towards Execution Period (security deposit).

EMD of the unsuccessful tenderer's will be returned without intimation within 60 days of placing of the order to the successful Tenderer subject to the unsuccessful bidder returning the original receipt of the EMD together with the advance stamped receipt, to the Accounts Officer of PDPU.

EMD will be returned to the successful bidders, only on their submission of performance guarantee towards execution period against order released to them.

8 PERFORMANCE GUARANTEE (PG) TOWARDS EXECUTION PERIOD: (i.e. SECURITY DEPOSIT):

Successful tenderers will be required to pay an amount equivalent to 10% (Ten) of the value of the purchase order as Performance Guarantee (Security Deposit) within 10 days from the date of the purchase order failing which the purchase order is liable to be cancelled at the cost and the risk of the successful Tenderer (at the discretion of PDPU).

It can be paid by Demand Draft drawn in favour of PANDIT DEENDAYAL ENERGY UNIVERSITY payable at Ahmedabad or in the form of Bank Guarantee from Nationalized Bank if the amount is more than Rs.35,000/-.

The Bank Guarantee will be executed on the standard form prescribed by PDPU as APENDIX - I.

The Bank Guarantee so furnished should have clear one time validity till the completion of the order in all respects. Bank Guarantee for Interim period will not be acceptable. If by any reasons the supply period is extended then the supplier shall undertake to renew the Bank Guarantee at least one month before the expiry of the validity failing which PDPU will be free to encash the same.

The successful bidder/s shall have also to furnish PG (as specified here of) for the contract value towards warranty / guarantee period separately as applicable as per tender conditions.

Performance Guarantee towards Execution Period (Security Deposit) will be returned on successful completion of the Order and only after the Performance Guarantee towards warranty/guarantee, as mentioned above, is submitted.

9 VALIDITY OF THE OFFERS:

The offers shall to be kept valid for a period of 120 days from the date of opening of technical bids. In case the finalization of the tender is likely to be delayed, the tenderers will be asked to extend the same without change in the prices or any terms and conditions of the offer. If any change is made, original or during the extended validity period, the offers will be liable for outright rejection without entering into further correspondence in this regard and no reference will also be made.

10 TRUCK RECEIPT (T.R) / AIRWAY BILL (A.B)

All the Goods should be dispatched freight paid and the A.B / T.R should be forwarded directly to PDPU Office at Raisan Village, Gandhinagar. The demurrage charges, if any, paid by the PDPU due to delay in informing PDPU or any other reason attributable to supplier, will be deducted from his bill. It is essential that packing notes and invoices are furnished in respect of every consignment.

The supplier will be responsible for any damages / shortage claim rejected by the respective Authorities for want of a clear A.B / T.R.

Materials may be dispatched by any convenient mode of transport and up to PDPU i.e. F.O.R Destination.

11 PACKING AND FORWARDING CHARGES:

The prices shall be inclusive of packing & forwarding charges. The Materials should be strongly and adequately packed to ensure safe arrival at destination. The materials dispatched from overseas by Air / Shipping should be packed such that it can withstand rough handling and possible corrosion due to exposure to salt laden atmosphere, salt spray or open storage. All packing must be clearly marked with order Number and consignee's name and address.

12 TRANSIT INSURANCE:

All the materials will be required to be supplied up to Destination against all transit risks, such as damage, loss, theft, fire, etc. The insurance period shall cover 15 days after the date of receipt of materials at site to enable PDPU to check up stores fully. The suppliers will be responsible for free replacement of such stores which have been received short, damaged or broken within 15 days.

The cost of damaged, defective stores materials will however be deducted from the bills of the suppliers and will be refunded only after replacement thereof. It will be the

responsibility of the supplier to lodge claim against the insurance on receiving necessary advice from PDPU.

13 ACCEPTANCE OF STORES:

The equipments/ materials to be supplied against this tender are subject to their acceptance by PDPU or any other Officer deputed for this purpose.

14 UNLOADING:

Unless specified otherwise in the purchase order, Unloading of the materials shall be arranged by PDPU.

15 STATUTORY VARIATION:

Any statutory increase or decrease in the taxes and duties subsequent to the offer under this tender if it takes place within the original contractual delivery date will be to PDPU account subject to the claim being supported by documentary evidence. No increase due to such variation shall be allowed for the portion of the delivery after the original contractual delivery date. However, if any decrease takes place after the contractual delivery date, the advantage will have to be passed on to PDPU.

16 PAYMENT TERMS :

A. In case of Domestic(i.e. Indian) Supplier the payment Terms as Under :-

- 70% of Payment only after proper verification of the delivered equipments by the vender.
- Remaining 20% Payment of invoice value within one month on successful installation, Commissioning and training and remaining 10% after submission of PBG.

OR

- 100 % through Wire Transfer within 15 (fifteen) Working Days after the date of Successful Commissioning and Installation of the System.

B. In case of Foreign Supplier the Payment Terms is as Under :-

- 90 % payment through Irrevocable Letter of Credit.
- 10 % payment through Wire Transfer within 5 (five) Working Days after the date of Successful Commissioning and Installation of the System.

OR

- 90% payment will be released through wire Transfer within 5 (five) Working Days after receipt of the material.
- 10% payment will be released through Wire Transfer within 5 (five) Working Days after the date of Successful Commissioning and Installation of the System.

OR

- 100 % through Wire Transfer within 5 (five) Working Days after the date of Successful Commissioning and Installation of the System.
- **Installation:** - The PDPU will be responsible to prepare the site for installation of equipment. The vendor has to arrange for technician, other manpower, tools etc for installation and commissioning of the goods supplied by him.

17 REPEAT/ADDITIONAL ORDERS:

PDPU reserves the right to place repeat order / additional order on the successful tenderers up to 25% of the original quantity of the P O at the same prices, terms and conditions stipulated in the original contract during three months from the date of Purchase Order.

18 DELIVERY PERIOD:

The Tenderers will have to quote a firm delivery period subject to the force Majeure conditions as accepted by PDPU. Tenderer should mention their delivery period. Time being the essence of this tender, delivery period shall be strictly adhered to. Delay in execution of order on account of any reasons will be subject to levy of penalty.

19 PENALTY FOR LATE DELIVERY:

In case, the materials are not delivered within the period stipulated in the order, penalty shall be levied at ½% per week on the prices (End cost excluding taxes) subject to maximum 10% reckoned on the value of late delivered supplies.

Due consideration will be given to waive levy of penalty for the reasons absolutely beyond suppliers control for which documentary evidence will have to be provided. The request for extension in delivery giving reasons and supporting documents shall have to be made available within one month on completion of the supply, and no request to waive levy of penalty will be entertained / reviewed during the execution of order.

20 EXTENSION IN CONTRACTUAL DELIVERY DATE:

It will be supplier's responsibility to ensure that goods are delivered within the stipulated delivery period. However, if PDPU may consider extension of delivery period with or without statutory variations, for the reasons beyond the control of the tenderer and subject to the Penalty as mention hereof.

Such extension will be subject to the following conditions.

[a] No increase in price on account of any statutory increase in or fresh imposition of customs duty, excise duty, sales tax or on account of any other tax or duty shall be admissible on the material delivered after the original contractual delivery date.

[b] Notwithstanding any stipulation in the contract for increase in price on any other ground, no such increase which has become effective on or after the contractual delivery date shall be admissible on material delivered after the original contractual delivery date.

[c] Nevertheless, PDPU shall be entitled to the benefit of any decrease in price on account of reduction in or remission of customs duty, excise duty, sales tax or on account of any other tax or duty or on any other ground as stipulated in the P.O., which takes place on or after the contractual delivery date of the said P.O. for the material delivered after the original contractual delivery date.

21 REPLACEMENTS OF GOODS BROKEN, DAMAGED OR SHORT:

In the event of any material or part thereof found broken or damaged or received short during transit or during installation or Commissioning or testing at site, before commissioning in service the suppliers shall replace the same free of cost. However, PDPU will recover amount equivalent to the cost of such damaged / broken / short supplied materials and will repay when actual replacement is given.

22 POST TENDER CORRESPONDENCE / ENQUIRIES:

The Tenderer will refrain from pursuing / canvassing the matter, directly or indirectly with any Office of PDPU as otherwise the same would amount to disqualification of the tender.

23 PDPU shall have the right to make any changes, additions / deletions or modifications in any terms / conditions or quantity of the tender and / or specifications as may be deemed necessary by PDPU at its sole discretion at any time before the due date of opening of the tender.

- 24 PDPU does not accept the printed conditions of any Tenderer. It will be ignored without any reference; hence tenderers should withdraw such printed conditions if they have any. PDPU shall accept only unconditional tender.
- 25 If technical deviations furnished by the Tenderer are not agreeable to PDPU, the offers may be ignored. However it will be solely at discretion of PDPU to consider the technical deviations OR not for considering the Tenderer. No correspondences of the Tenderer will be entertained in this matter.
- 26 Please indicate whether the goods offered are first sale or second sale so as to determine the payment of sales tax.
- 27 Revision of prices or any commercial terms affecting the price after opening of technical bids shall not be considered and will be ignored.
- 28 Tenderers shall indicate the name of their partners of their manufacturing firm.
- 29 Tenderer should specifically mention in the offers the name of the Partners / Proprietor / Directors who is / are the signing authority.
- 30 **GUARANTEE:**
If the goods, stores and equipments found defective due to bad design or workmanship the same should be repaired or replaced by the tenderer free of charge if reported 24 months from the date of commissioning of equipments whichever is earlier. Tenderer will be responsible for the proper performance of the equipments / materials for the respective guarantee period.
- 31 **APPROVAL:**
The goods shall be subject to the approval of PDPU after receipt of the Material at site.
- 32 PDPU would prefer the offers from manufacturers directly. All the manufacturers should quote for those items, which are actually manufactured at / rolled by their plants. This should be strictly adhered.
- PDPU reserves the right to inspect, suppliers factory at any time during the currency of the contract in case order is placed on supplier and also to inspect manufactured material before testing / packing / dispatch.
- 33 If in any company, the interest of any employee of the PDPU. or his relative as defined in Section VI of the Company's Act. 1956, is 10% or more, PDPU will not deal with such company at all. Tenderer therefore, must specifically disclose this fact in his technical Bid. Non-disclosure of such facts would disqualify the Tenderer for further dealing with PDPU.
- 34 **TERMINATION OF CONTRACT:**
In case, the supplier fails to deliver the stores / materials / equipments or any consignment thereof within contractual period of delivery or in case the stores are found not in accordance with prescribed specification and/or the approved sample, PDPU shall exercise its discretionary power as under:
[a] To recover, from the supplier as agreed, by way of penalty clause above,
or
[b] To purchase from elsewhere, after giving notice of 15 days to the supplier, on his account and his risk
or

[c] To cancel the contract.

or

[d] PDPU at any time terminate the contract by giving written notice to the qualified Bidders/Tenderer without compensation to the qualified tenderer, if he become bankrupt or otherwise, insolvent or in case of dissolution of firm or winding up of company provided that such termination will not prejudice or effect any right of action or remedy which has thereafter to the University.

In the event of the risk purchase of stores of similar description, the opinion of PDPU shall be final. In the event of action taken under clause (a) or (b) above, the supplier shall be liable to pay for any loss which PDPU may sustain on this account

Further, "PDPU" reserves the right to terminate the Contract (i.e. Purchase order) at any time, without assigning any reasons, whatsoever, by giving a notice or not less than period of ONE month. Suppliers will not be entitled for any compensations / damages / losses, refund by PG whatsoever, on account of such termination of the Contract."

35 ARBITRATION:

All questions, disputes or differences whatsoever which may at any time arise between the parties to this agreement touching the agreement or subject matter thereof, arising out of or in relation to there and whether as to construction or otherwise shall be referred to the decision of the Sole Arbitrator, appointed by the PDPU, for that purpose, who shall be a retired High Court Judge or retired District and Sessions Judge, and the decision of the said Arbitrator shall be final and binding upon the parties. Reference to the arbitration shall be governed by the provisions of Indian Arbitration & Conciliation Act. 1996 as amended from time to time and the rules made there under.

36 JURISDICTION:

All questions, disputes or differences arising under, out of or in connection with the Tender / Contract shall be subject to the exclusive jurisdiction of Ahmedabad court.

37 If the tenderer is an Agent, he will have to give information and declare the name of the principal from which he will source the materials along with company's written confirmation about quality and backup performance guarantee. Only on getting complete information from Agent, such offer, if found suitable, shall be considered.

38 PDPU reserves the right to cancel any or all the offers / bids or to accept any offer without assigning any reasons.

In case PDPU finds that there is an attempt of cartel in the prices, PDPU reserves the right to consider or reject any or all the parties offers without assigning any reasons thereof.

39 PDPU reserves the right to increase or decrease the quantity against each item/s while placing the order.

40 The names of the Partners / Directors / Sole Proprietors and responsible person and his updated Address / Telephone, Fax Numbers etc. should be invariably mentioned in the Annexure provided for this purpose in this document.

41 The Tenderer should give in his offer, the full name and address with phone, Fax & mobile numbers of the Authorized Representative to do liaison work with PDPU on their behalf.

42 The tenderers should invariably write the name and address of the Company, both on sealed covers of EMD, Technical & Price Bids. The tender covers without the name and address will not be opened.

43 The tenderers are required to furnish the technical information and the Guaranteed

technical particulars (GTP) along with company seal and signature of the Tenderer on each and every page / papers of the tender documents.

- 44 Tenderer should invariably fill up all the details of all the Annexure/s including the prices in the Price Bid Annexure of this tender document and should be duly signed by authorized signatories with their rubber stamp and along with Company's seal / stamp affixed on each paper.
- 45 If the Tenderer fails to pay the Security Deposit or defaults in execution of the orders placed or if PDPU suffers any financial loss due to this, then PDPU will be at liberty to adjust the amount from other orders of the same firm or by encashing the Bank Guarantee.
- 46 All the tenderers must ensure that all the relevant documents / papers submitted with the tender should be serially numbered, properly bounded / tied together and properly documented.
- 47 All the above points should be complied by the Tenderers. If not, tenders are likely to be ignored without making any further reference.

-----x-----x-----x-----x-----

E. M. D. BANK GUARANTEE FORMAT

FOR TENDER NO. PDPU / _____

APPENDIX - I

(BANK GUARANTEE ON NON-JUDICIAL STAMP PAPER OF Rs.100/-)

Messer's WHEREAS _____ (Name & Address of the Firm) having their registered office at _____ (Address of the firms Registered office) (Hereinafter called the "Tenderer") wish to participate in the tender No. _____ for _____ of _____ (Supply/Erection/Supply & Erection Work) (Name of the material/equipment/Work) for _____ PANDIT DEENDAYAL ENERGY UNIVERSITY and WHEREAS a Bank Guarantee for (Hereinafter called the "Beneficiary") Rs. _____ (Amount of EMD) valid till _____ (Mention here date of validity of this guarantee which will be **4 (FOUR)** months beyond initial validity of Tender's offer) is required to **be submitted by the tenderer along with the tender.**

We, _____ (Name of the Bank and address of the Branch giving the Bank Guarantee) having our registered office at _____ (Address of Bank's registered office) hereby give this Bank Guarantee No. _____ dated _____ and hereby agree unequivocally and Unconditionally to pay within 48 hours on demand in writing from the PANDIT DEENDAYAL ENERGY UNIVERSITY or any officer authorized by it in this behalf any amount not exceeding Rs. _____ (Amount of E.M.D.), (Rupees _____) (In words) to the said PANDIT DEENDAYAL ENERGY UNIVERSITY on behalf of the Tenderer.

We _____ (Name of the Bank) also agree that withdrawal of the tender or part thereof by the tenderer within its validity or Non submission of Security Deposit by the Tenderer within one month from the date tender or a part thereof has been accepted by the PANDIT DEENDAYAL ENERGY UNIVERSITY would constitute a default on the part of the Tenderer and that this Bank Guarantee is liable to be invoked and encashed within its validity by the Beneficiary in case of any occurrence of a default on the part of the Tenderer and that the encashed amount is liable to be forfeited by the Beneficiary.

This agreement shall be valid and binding on this Bank upto and inclusive of _____ (Mention here the date of validity of Bank) and shall not be terminable by notice or by Guarantee) change in the constitution of the Bank or the firm of Tenderer Or by any reason whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, conceded with or without our knowledge or consent by or between the tenderer and the PDPU.

NOT WITH STANDING anything contained hereinbefore our liability under this guarantee is restricted to Rs. _____ (Amt. of E.M.D.) (Rupees _____) (In words). Our Guarantee shall remain in force till _____ (Date of validity of the Guarantee).

Place:

Date:

Please Mention here Complete Postal Address of the Bank with Branch Code, Telephone and Fax Nos.

SIGNATURE OF THE BANK'S
AUTHORISED SIGNATORY WITH
OFFICIAL SEAL

FORM OF BANKER'S UNDERTAKING

[For Performance Guarantees (PG) as per clause no.8 of commercial terms and conditions]

We, Bank of _____ hereby agree unequivocally and unconditionally to pay within 48 hours on demand in writing from the **PANDIT DEENDAYAL ENERGY UNIVERSITY**. or any Officer authorized by it in this behalf any amount up to and not exceeding Rs. _____ (in words) Rupees _____ to the said **PANDIT DEENDAYAL ENERGY UNIVERSITY** on behalf on M/s. _____ who have entered into a contract for the supply/works specified below:

P.O. (A/T) No. _____ dated _____.

This agreement shall be valid and binding on this Bank upto and inclusive of _____ and shall not be terminable by notice or by change in the constitution of the Bank or the firm of Contractors / Suppliers or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alterations made, given conceded or agreed, with or without our knowledge or consent, by or between parties to the said within written contract.

“NOTWITHSTANDING” anything contained herein before our liability under this guarantee is restricted to Rs. _____ (Rupees _____ only). Our guarantee shall remain in force until _____.

Place:

Date:

Please Mention here Complete Postal Address of the Bank with Branch Code, Telephone and Fax Nos.	SIGNATURE OF THE BANK'S AUTHORISED SIGNATORY WITH OFFICIAL ROUND SEAL
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ANNEXURE - 1

I / WE, confirm that following documents are attached with the technical bid of the offer and should be placed as a **First page** of offer.

Sr. No	Details	Confirmation (Tick \checkmark any one)
1	Firm's details as per "Annexure -2"	YES / NO
2	"Annexure -3"	YES / NO
3	Delivery schedule as per "Annexure- 4"	YES / NO
4	Past experience details as per "Annexure-7"	YES / NO
5	PDPU technical specification duly signed and with seal of firm.	YES / NO
6	Technical & Commercial Deviation- "Annexure-6"	YES / NO
7	Experience Certificate-"Annexure-7"	YES / NO
8	Conformation of Tender Condition-"Annexure-8"	YES / NO

Signature of the Tenderer

ANNEXURE - 2
DETAILS OF THE FIRM

Tenderer shall provide all the details in this form and shall be placed as a Second Page of the bid.

Supplier Name			
Within Gujarat / Outside Gujarat			
Pvt. Firm / Public Ltd. / State Govt. Under taking / Central Govt. undertaking		(Indicate the relevant status)	
GST No. and GST Date			
CST No. and CST Date			
Excise No. and Excise Date			
Financial Turnover for Past 3 Years (Rupees in Lacs (10 ⁵))		1 st Year	2 nd Year
Custom No. and Date (If applicable)			
Address of	Registered Office	Factory / Works	Authorized Representative
Contact person name			
Designation			
Address			
City & Pin code			
State			
Country			
Phone Nos.(Off.)			
Phone Nos.(Res.)			
Fax Nos.			
STD Code.			
Mobile No.			
Web site address			
Email-id			
Specimen signature			

ANNEXURE-3

Tenderer shall fill up following details and shall be **Third page** of the Technical Bid

1	PRICES: [FIRM ONLY] (Please Specify YES / NO.)	
2	EXCISE DUTY: [SINGLE SLAB ONLY] (Please Specify INCUSIVE / EXCLUSIVE / EXEMPTED)	_____ %
3	SALES TAX: [IN PERCENTAGE] (Please Specify INCUSIVE / EXCLUSIVE / EXEMPTED) Please quote your Sales Tax Registration No. & Date.	_____ %
4	PENALTY TERMS AGREED : (Please Specify YES / NO.)	
5	PERFORMANCE GUARANTEE TO COVER EXECUTION PERIOD (SECURITY) TERMS : AGREED: (Cl.no.8) (Please Specify YES / NO.)	
6	PERFORMANCE GUARNTTEE TO COVER WARRANTY PERIOD TERMS AGREED: (Wherever applicable):(Please Specify YES / NO.)	
7	VALIDITY OF THE OFFER AGREED: (Please Specify YES / NO.)	
8	PAYMENT TERMS AGREED: (Please Specify YES / NO.)	
9	ITEMS OFFERED :(Yes/No)	

Signature of the Tenderer

ANNEXURE - 4

Details of the Items and Qty.offered as a Fourth Page of offer.

Sr. No.	Details of the Items / Equipments Offered	Quantity Offered	Status: Supplier/Manufacturer

Signature of the Tenderer

ANNEXURE - 5

TECHNICAL AND COMMERCIAL DEVIATIONS IF ANY TO BE FURNISHED IN THIS ANNEXURE ONLY AND TO BE SUBMITTED WITH TECHNICAL BID.

We confirm that the product offered under this tender complies with all the Technical Specifications, except the deviations mentioned above.
We also confirm that there are no commercial deviations other than mentioned above

Signature of the Tenderer

ANNEXURE-6

DETAILS OF THE EXPERIENCE FOR SUPPLY OF SIMILAR TYPE OF ITEMS IN LAST THREE YEARS FROM THE DUE DATE OF TENDER:

Sr. No	ITEMS SUPPLIED TO	ORDER REFERENCE No. & DATE	ITEMS	Qty.	ORDER FULLY EXECUTED. YES/NO	STATUS, IF ORDER UNDER EXECUTION	REMARKS
1)							
2)							
3)							
4)							
5)							

Signature of the Tenderer

ANNEXURE - 7

Subject: Supply of _____

Reference: Tender enquiry No. PDP/ /
Due on date: / / 200 .

In connection with the above subject and reference I/ We confirm the following:

1. I / We, the undersigned have read and examined the Tender Specifications and commercial terms and conditions of tender under reference.
2. I / We, declare that our Technical Bid is strictly in line with the Tender specifications (except the deviations shown in Annexure No.7).
3. Further, I / We also agree that additional conditions / deviations, if any, found in the Commercial terms & conditions (except mentioned in the Annexure-7), our offer shall be outrightly rejected without assigning any reason thereof.

Seal of the Firm

**Signature of the Authorised
Representatives of the firm**

Date:

Name:

Status:

Name of the Tendering Firm / Agency:

PANDIT DEENDAYAL ENERGY UNIVERSITY

Raisan village, Koba-Gandhinagar High-way,
Gandhinagar – 382007, GUJARAT, INDIA

SCHEDULE - 'B' (Price Bid Format)

Sr. No	Description of materials with details of specification	PDPU Bid. qty.	Qty. offered by tenderer	Unit Ex-works In #.	Unit insurance charges in #.	Unit Freight & Packing charges in #.	Unit Custom Duty in #.	Unit Excise Duty in #.	Unit Sale Tax in #.	Unit End Cost price in #.
1	2	3	4	5	6	7	8	9	10	11

Note :-

- '#' Tenderer shall mention the Currency.
- In case the price quoted in Foreign Currency (Other than INR), for the purpose of comparison the Exchange Rate prevailing on the date of opening of Price Bid as notified by Custom Department, Government of India will be considered.

Remarks:

I / We agree to supply the articles mentioned above at the rates herein tendered by me / us subject to the condition of this tender which I/We have carefully read, understood and agree.

I / We here by agree to keep this offer open for 120 days after the returnable date of the tenders and shall be bound by communication of acceptance dispatched within the prescribed time.

Date:

Yours sincerely,

(Signature of Tenderer)
(With Company's Round Seal)