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**NIELAN-TECHNOLOGY BUSINESS99S INCUBATOR**  
NESTING INCUBATION AND ENTREPRENEURSHIP FOR LEVERAGING AGRI-INNOVATIONS (NIELAN)  
**ICAR-INDIAN INSTITUTE OF MILLETS RESEARCH**  
Hyderabad 500 030, Telangana State

F. No. TBI/39/59/Nielan/18  
Date: 3<sup>rd</sup> February, 2018

**LIMITED TENDER ENQUIRY**

Sub: Quotation for fabrication of Tray dryer as per drawing and specifications given at Annexure I- Regarding

**Dear sir (s),**

Quotations are invited for following items cited below:

S.No	Name of the Items	Quantity
1	Fabrication of TRAY DRYER As per specification given in Annexure - I and II	1 No

**TERMS & CONDITIONS**

1. The last date for submission of quotation is on or before **17-03-2018**. Rates offered shall be F.O.R, NIELAN-TBI, IIMR, Rajendranagar, Hyderabad.
2. Quotations should be send by post only in a sealed cover addressed to the Chief Executive Officer , NIELAN-Technology Business Incubator, Indian Institute of Millets Research(IIMR), Rajendranagar, Hyderabad – 500 030. The cover containing quotation should invariably be super scribed. The quotations in person by hand will not be accepted.
  - a. Enquiry TBI/39/59/Nielan/18
  - b. Due on 17-03-2018
  - c. For Fabrication of Tray dryer
3. The quotation should remain open for acceptance for a period of 90 days from the date (due date)
4. An earnest money of **Rs.10,000/ - (Rupees ten thousand only)** should be deposited in the form of Demand **Draft** / Banker`s Cheque in favour of `NIELAN ` payable at Hyderabad. The quotation will not be considered if earnest money is not deposited with the tenders.

5. The earnest money would be refunded to all the unsuccessful bidders. For successful bidders the earnest money would be refunded only after deposition the Security deposit/ Performance Guarantee.
6. **An amount of 5% of total order value as security Deposit (performance Guarantee) in the form of DD / Bank Guarantee** for the supply of Tray dryer to be deposited by the successful Bidder only after receiving a communication from the Institute, In the event of non - deposition of the same within 05 days of the communication, the earnest money will be forfeited. In the event of any default of performance or conditions of supply, the security deposit will be forfeited.
7. No advance payment/ delivery against payment are permissible. However, the payment shall be arranged in 10 days from the date of submission of pre-receipted bill in triplicate after fabrication and supply.
8. The rates quoted should be net payable for each item for delivery at the Institute at the address given above ( inclusive of all taxes, packing, forwarding, transport, insurance and excluding rebate/ discount etc.,)
9. While quoting the rates please mention the following:
  - Approximate time for supply of Tray Dryer from the date of placing order.
  - Guarantee/warranty/Expiry period
  - In case you have got any rate contract with the DGS&D, the same maybe indicated
  - Any other condition

Quotations which do not conform to the above terms and conditions will not be considered. The President, NIELAN-TBI of Indian Institute of Millets Research, reserves the right to accept or reject any or all quotations without assigning any reasons thereof.

Yours sincerely,

**B Dayakar Rao**  
Chief Executive Officer

**Annexure - I**  
**DESIGN AND DEVELOPMENT OF TRAY DRYER**

**DESCRIPTION:**

1. The tray dryer is cubical in shape with external dimensions of 2673.98mm\*1198mm\*2354mm and internal dimensions of 2557.98mm\*1016mm\*2215mm.
2. This tray dryer is of 96 trays capacity. The dimensions of trays are 760mm\*870mm\*30mm.
3. The heater will supply the energy required to heat the air and will be supplied through the fan to vaporize moisture from wet product in the drying chamber.
4. A 1.5kw finned tube heating coil was selected for the drying system. Totally 20 heating coils are used for this tray dryer.
5. The flange type motor provides the energy to move the air mechanically into the heating unit which is supplied to the drying chamber.
6. A 0.5hp and 1440 rpm motor was used to circulate the air. Totally 4 motors are used for this dryer, two rotating in clockwise direction and another two in anti-clockwise direction.
7. A temperature controlling device i.e. thermostat shall be used to control the temperature inside the drying chamber.
8. Thermocouple is used to control the exhaust fan in this tray dryer. Inside temperature above 80°C means exhaust fan will be switched on automatically and if inside temperature is below 60°C, it will be switched off automatically.
9. Exhaust fans are used to remove the inside pressure and moisture content in drying chamber. It will rotate at 960 rpm in clockwise direction.
10. In this tray dryer ceramic wool insulation material is used. The insulation of the dryer to conserve heat energy and is very important. The thickness of the insulator is 35mm. The walls of the dryer were insulated mainly to prevent radiant heat loss.
11. The tray dryer is well equipped with a timer that shuts itself down after completion of the pre-set time in it.
12. The tray dryer has two separate compartments separated vertically and can be used as a single chamber if the centre plate is removed to facilitate the use of large sized trays. To save power separate chambers are equipped with different electrical connections and only one chamber may run while the other is at shut down mode.

## MATERIALS REQUIRED FOR TRAY DRYER FABRICATION

### Specification:

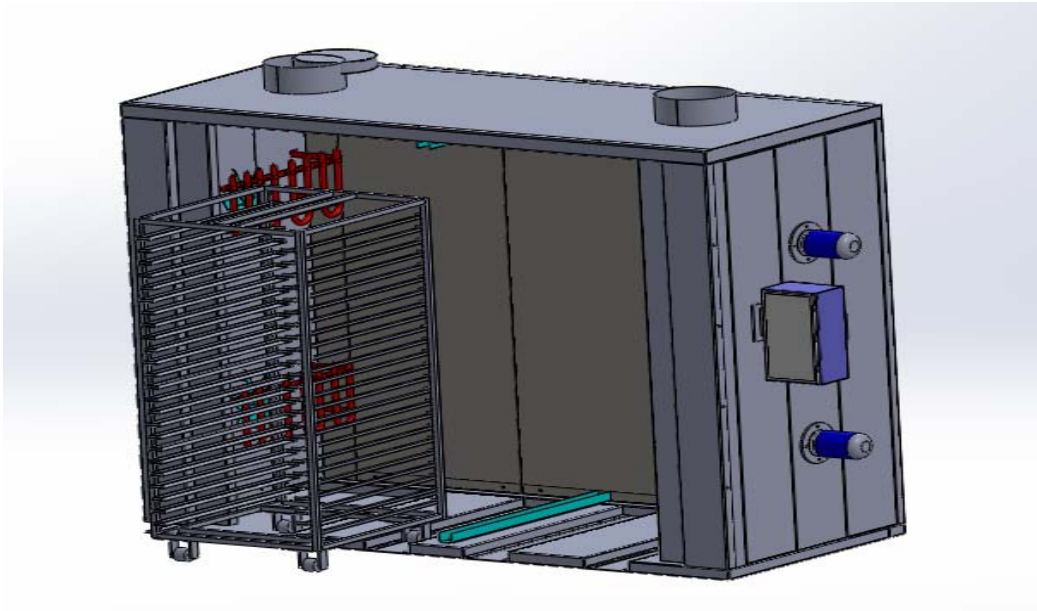
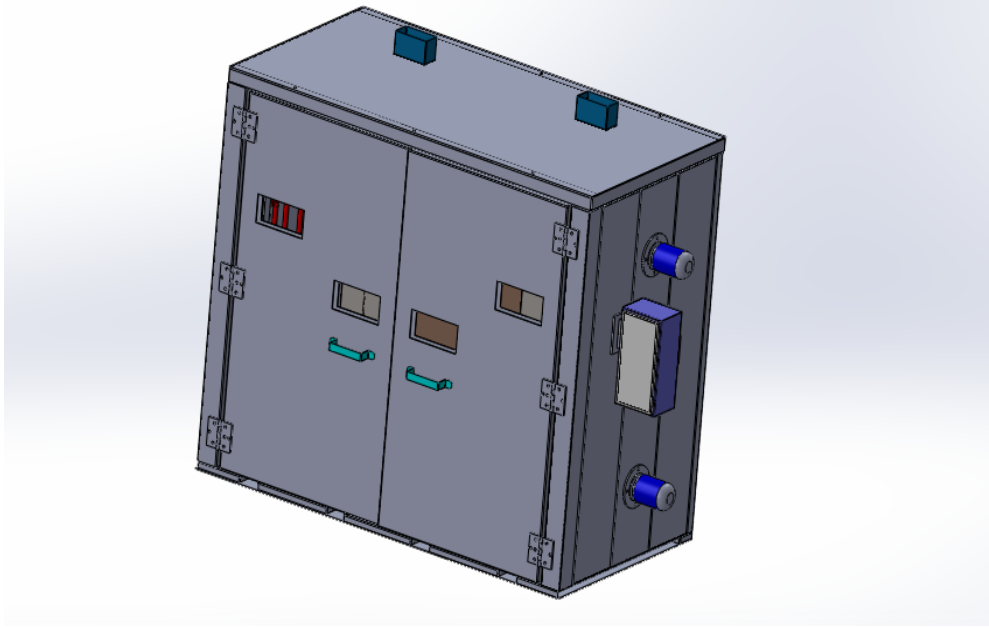
S.No	Items(s)	Quantity	Dimensions	material
1	SS-304 PLATE (2 mm)	01	L=2557.98mm , h=2215mm	SS-304
2	SS-304 PLATE (2 mm)	02	L=585.49mm , h=1182mm	SS-304
3	SS-304 PLATE (2 mm)	02	L=504.99mm , h=1182mm	SS-304
4	SS-304 PLATE (2 mm)	01	L=403.99mm , h=1182mm	SS-304
5	SS-304 PLATE (2 mm)	01	L=2673.98mm , h=1198mm	SS-304
6	SS-304 PLATE (2 mm)	02	L=464.71mm , h=2215mm	SS-304
7	MS.PLATE (2 mm)	02	L=1020mm , h=2215mm	M.S
8	MS.PLATE (2 mm)	01	L = 760mm , h = 2200 mm	MS
9.	MS.PLATE (3 mm)	01	L=2673.80mm , h=1198mm	MS
10	MS.PLATE (1.5 mm)	02	L=1101.70mm , h=2203mm	MS
11	MS.PLATE (3 mm)	01	L=2770.98mm , h=210mm	MS
12	MS.PLATE (3 mm)	02	L=157mm , h=1075mm	MS
13	MS.PLATE (3 mm)	02	L=351.14mm , h=2312.42mm	MS
14	MS.PLATE (3 mm)	02	L=330mm , h=2409.85mm	MS
15	MS.PLATE (3 mm)	03	L=852.08mm , h=2409.85mm	MS
16	MS.PLATE (3 mm)	02	L=508.21mm , h=2215mm	MS
17	MS.PLATE (3 mm)	01	L=2810.98mm , h=1431.99mm	MS
18	MS.PLATE (3 mm)	02	L=1102.29mm , h=2391.85mm	MS
19	1 sq mm wire	01 coil	-	-
20	2.5 sq mm fiber glass	60 mtrs	-	-
21	6.0 sq mm fiber glass wire	50 mtrs	-	-
22	4.0 sq mm fiber glass wire	70 mtrs	-	-
23	Digital meter amps & volt SR 72	03 nos	-	-
24	1.5 sq mm pin type socket	50 nos	-	-
25	2.5 sq mm ring socket	80 nos	-	-
26	4 sq mm ring socket	50 nos	-	-
27	4 sq mm pin type socket	20 nos	-	-
28	6 sq mm ring socket	50 nos	-	-

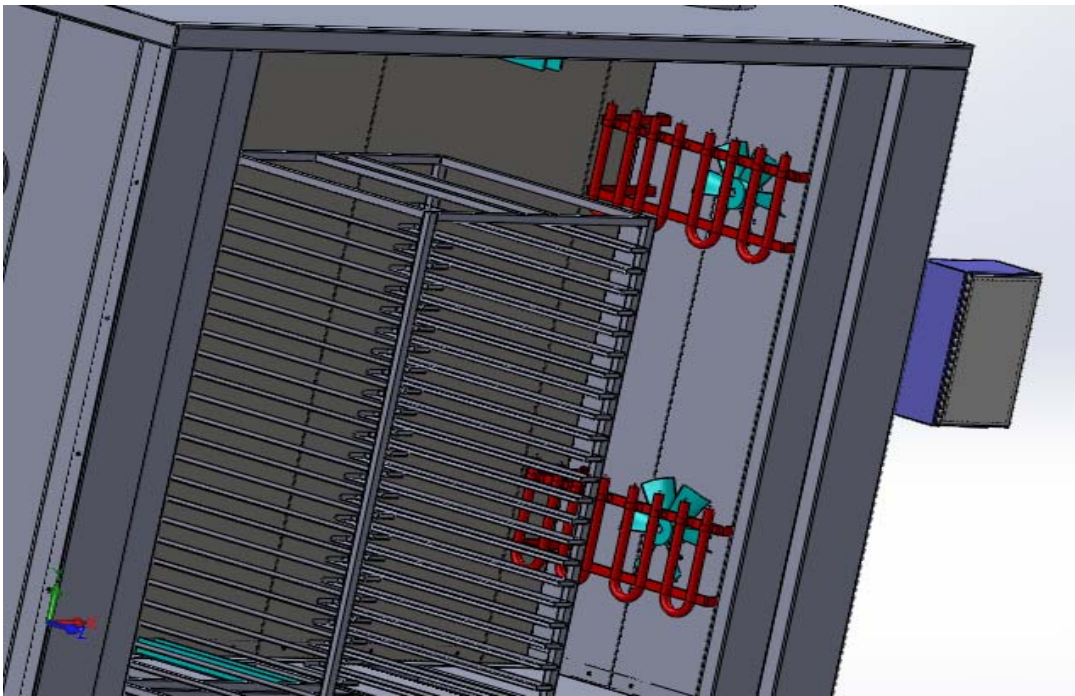
S.No	Items(s)	Quantity	Dimensions	material
29	6 sq mm pin type socket	20 nos	-	-
30	32A 3W connector (por)	02 nos	-	-
31	16A 2W connector (por)	01 nos	-	-
32	20A 3P MCB	02 nos	-	-
33	0.5 HP flange type motor with blade	04 nos	-	-
34	125A control switch	01 nos	-	-
35	Thermo couple	02 nos	-	-
36	1.5 KW heating coil	20 nos	-	-
37	Ceramic wool	02 box	-	-
38	Theremo couple wire	20 mtrs	-	-
39	Rotary switch	10 nos	-	-
40	Temperature controller	02 nos	-	-
41	Rotary switch 3P16	04 nos	-	-
42	MCCB 200/250A	02 nos	-	-
43	Exhaust fan 8 inch	02 nos	-	-
44	Powder coating	-	1100 sq feet	-
45	Nut bolt	70 nos	10 dia	MS

**CONDITIONS:**

- 1) Design specification may vary to the time during the development process; hence the industry should be ready to incorporate all the modified specifications suggested by the indenter and also the additional parts needed to reach the defined target.
- 2) Additional improvements to be taken by the industry after getting the approval from the office.

# TRAY DRYER





**Annexure-III**

Particulars to be filled in by the Bidder

1. Name of the Agency
2. Date of establishment
3. Detailed office address with telephone Number, email etc.
4. Mobile No and name of contact person
5. Whether registered with all concerned Government Authorities (attach copies)
6. PAN/TAN
7. GST
8. Whether the firm is blacklisted by any Government department or any criminal Case is registered against the firm or Its owner/partner anywhere in India,
9. List of client and experience in the field
10. Details of contracts executed of similar works
11. Whether a copy of the terms and conditions (Annexure I) duly signed, in taken of acceptance of the same is attached.

Signature and seal of  
the Agency

Date :