



सीएसआईआर-केंद्रीय खाद्य प्रौद्योगिक अनुसंधान संस्थान
CSIR- CENTRAL FOOD TECHNOLOGICAL RESEARCH INSTITUTE
मैसूरु / MYSURU-570 020, भारत / INDIA

(Constituent Laboratory of CSIR, New Delhi (Ministry of Science & Technology)
An ISO 9001:2008, ISO 14001:2004 & ISO 17025:2005, NABL Accredited Laboratory

सं. /No. CFTRI /74196/2020

दिनांक / Date: 30th June 2020

NOTICE INVITING TENDER

क्रम सं. Sl. No.	निविदा संदर्भ Tender Reference	विवरण / Description
1	CFTRI/74196/2020	Ragi Milling Machineries – 1No.

1. Director, CSIR-CFTRI, Mysuru invites tenders for supply, installation & commissioning and satisfactory demonstration of Ragi Milling Machineries – 1No.
2. **Pre Bid conference is scheduled on 08.07.2020 in Person/Video Conference at 10.00a.m at CSIR-CFTRI, Mysore (Refer Sl. No. 5 of instruction to bidders)**
3. Last date for submission of Tender is 2.00 P.M. (IST) on 28 /July/ 2020 on line in etenders.gov.in.
4. Bid Security(EMD) Rs. 55,000.00
5. Technical Bid Opening on line in etender portal at 2.30 P.M(IST) on 29/July/2020

हस्ता./Sd/-

अनुभाग अधिकारी (भंडार एवं क्रय)

Section Officer (Stores & Purchase)

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CRITICAL DATE SHEET

CRITICAL DATE SHEET:

Tender Ref/No. CFTRI/74196/2020

Sl.No.	Stage	Date & Time
1	Publish Date & Time	30/06/2020 @ 1.00p.m.
2	Document Download Start Date & Time	30/06/2020 @ 1.00p.m.
3	Pre Bid Conference	08/07/2020 @ 10.00a.m
3	Bid submission Start Date & Time	14/07/2020 @ 10.00a.m.
4	Bid submission End Date & Time	28/07/2020 @ 2.00p.m.
5	Bid Opening Date & Time	29/07/2020 @ 2.30p.m.

TENTATIVE TIME SCHEDULE OF PROCUREMENT PLANNING:

Sl.No.	Stage Tentative Frame Time	Date & Time
1	Date of Bid opening	29/07/2020
2	Date of Completion of Techno-Commercial Bid evaluation	29/07/2020+ 15 Days
3	Date of Communication of Rejection of Bids	29/07/2020+ 25 Days
4	Date of Receipt of Contest, if any, from Bidders	29/07/2020+ 35 Days
5	Notification of Award	29/07/2020+ 50 Days

TECHNICAL SPECIFICATION IN DETAIL

RAGI MILLING MACHINERIES/ EQUIPMENT LIST WITH SPECIFICATIONS

S. No.	Item	Power Consumption	Quantity
1	<p>Cleaner, grader cum Destoner</p> <p>Pressure type/Vaccum type destoner equipped with complete dust control system and grading system for Ragi.</p> <p>All steel construction deck capable of handling 500kg of Ragi required for high-quality size separation, removal heavier impurities like stone, metal etc and aspiration of dry material such as leaves, straw and other foreign materials.</p> <p>The unit should have feed hopper equipped with magnetic roller and feed control gate for even distribution of material on screen surface, aspiration system at inlet point and grading system at outlet point.</p> <p>Provision to vary the deck vibration, airflow and speed; provision to vary machine conditions while the machine is in operation.</p> <p>1 set of the additional following size of sieves should be provide along with the machine:</p> <ul style="list-style-type: none"> a) Sieve – 0.8 to 1.0 mm b) Sieve – 1.2 to 1.5 mm c) Sieve – 1.6 to 3.0mm <p>The unit should be fitted with appropriate capacity continuous rated TEFC induction motor and starter of reputed make to run on 415V, 50Hz, 3 phase AC supply.</p> <p>Capacity: 500kg/h</p>		1
2	<p>Drawer Magnet Separator system</p> <p>Drawer Magnet is used to remove ferrous contaminants from dry, free-flowing grains. When grains fall down on drawer magnet metal are a clog and other particles go to another section. Generally, it holds and captures ferrous contaminants from flowing food products. They are applied in the cleaning house prior to the milling unit.</p>		Number as per the requirement (1unit in each section i.e. Cleaning, Steaming /drying, polishing, finished material
3	<p>Brushing unit</p> <p>All steel construction, brushing/Scarifier should designed to DE-gloom raw Ragi without damage. Upon entering the Brushing chamber, the seed is brushed against screen by the inside cylinder on which the Nylon brush is mounted. The system should DE-gloom raw Ragi in one operation. Brushing cylinder should have a variable speed drive. The unit should have settling chamber & Exhaust fan, adjustable air control facility and feed control hopper.</p>		1

	<p>1 set of the additional following type of Nylon brushes should be provide along with the machine:</p> <p>a) Soft b) Medium c) Hard</p> <p>The unit should be fitted with appropriate capacity continuous rated TEFC induction motor and starter of reputed make to run on 415V, 50Hz, 3 phase AC supply. Capacity: 450-500kg/h</p>		
4	<p>Engelburg Huller sheller</p> <p>Number 1 engelburg huller is required for DE-glooming raw Ragi without damage capable of handling 450-500Kg/h of Ragi</p> <p>The unit should be fitted with all necessary accessories like V-belt, shock absorbing anti-vibration mounts to make the frame vibration free and appropriate capacity continuous rated TEFC induction motor and starter of reputed make to run on 415V, 50Hz, 3 phase AC supply.</p>		1
5	<p>Continuous Vibro Fluidized bed dryer</p> <p>Continuous Vibratory fluid bed dryers Non-GMP type (Contact part only of SS304) is required for drying of Soaked/steamed Ragi. The Ragi to be dried is fed on top of perforated sheet (S.S.304) and the hot air operating (air temperatures 40-80⁰C) enters from the bottom of the perforated sheet.</p> <p>The fluid bed chambers are to be mounted on springs and fitted with vibratory motors with vibration controller system.</p> <ul style="list-style-type: none"> • The dryer should be equipped with control systems for adjusting vibro fluidization, residence time and product moisture. • The dryer should assure uniform product temperature • Unit should have proper system for temperature/airflow controls to customize the thermal process and maximize the efficiency of heat/mass transfer, assuring drying and cooling of the product within the best time and temperature range for high-quality output. • Unit should ensure explosion proof designs. • CIP (Cleaning in Place) options should be provided for good sanitation. • All the necessary systems like air heating system (Electrical/diesel//thermic fluid) with efficient heat exchangers, fans, cyclone separators, bag filters and scrubbers should be provided for smooth and efficient functioning of dryer. 	13Hp	2

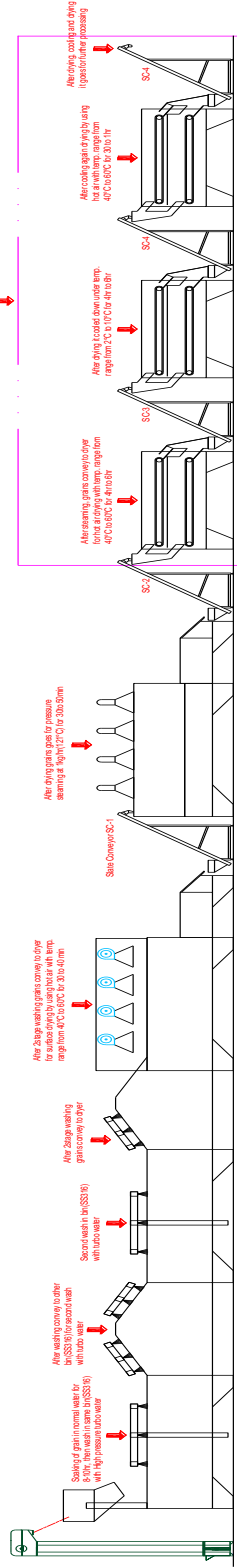
	<p>The unit should be fitted with suitable continuous rated TEFC induction electric motor and starter of reputed make to run on 415volts, 50Hz, 3 phase AC supply.</p> <p>Capacity - 500kg/h</p>		
6	<p>Tray Dryer Electrically Tray dryer for drying of steam Ragi with holding capacity of 500 kg.</p> <p>Unit should be fitted with electric heaters and blower fans to ensure proper circulation and transfer of heat, proper system for temperature/airflow and controls to customize the thermal process and maximize the efficiency of heat transfer, assuring drying of the product within the best time and temperature range for high-quality output</p> <ul style="list-style-type: none"> • Trays should be fabricated in Stainless Steel 304 • Digital temperature controller cum timer • Interiors are protected with high temperature heat resist aluminium paint • Adjustable exhaust air intake, proper temperature uniformity throughout work chamber • Safety temperature controller is set to protect overshoot temperature • Adjustable louvers for balanced air flow • Explosion venting latches, static and dynamic blower balancing • Fast acting heating element ensuring rapid heat up • Gasket on door to prevent heat loss <p>The unit should be fitted with suitable continuous rated TEFC induction electric motor and starter of reputed make to run on 415volts, 50Hz, 3 phase AC supply</p>		1
7	<p>Horizontal channel type emery stone grinder / abrasive disc grinder</p> <p>Emery stone grinder / abrasive disc grinder for De-branning of ragi grain.</p> <p>The machine should be equipped with a vibrating feeder with a control system, aspirator channel and dust collector systems.</p> <p><u>Emery Stone size – Dia.30” without any grooves or feathering on the grinding surface</u></p> <ul style="list-style-type: none"> • Varied RPM – with variable frequency drive(VFD) controlled • The unit should be equipped with an automatically controlled gap adjustment system <p>The unit should be fitted with suitable continuous rated TEFC squirrel cage induction electric motor and starter of reputed make to run on 415volts, 50Hz, 3 phase AC supply.</p>	30Hp	2 unit

8	<p>Cone polisher</p> <p>Semi-automatic polisher for De-branning of ragi grain with provision to vary machine speed/conditions while the machine is in operation.</p> <p>24inch Vertical abrasive cone polisher with Motor & Feeding hopper having 250 to 350kg/hr Polishing Capacity with all necessary accessories i.e starter for motor, pulley, belts etc. Machine efficient to remove greyish and reddish layer from ragi with the least breakage and highest output. Balance cone coated with emery composition, revolves, inside a meal-cage of interchangeable segment lined with perforated sheet.</p> <ul style="list-style-type: none"> • Rubber brakes – in order to control the flow of Rice, easily adjustable and can be replaced easily whenever they are worn out without removing the cribs from the machine. • Rigid construction guaranteed trouble-free lifelong service due to TAPER ROLL BEARINGS in Neck with dust protection oil seals and interchangeability in cone and bran cages. • Flat belt and individual motor driven by V-Belts with double bearing drums. • The machine should be equipped with bran collection system. • Capacity 500kg/h <p>The unit should be fitted with suitable continuous rated TEFC induction electric motor and starter of reputed make to run on 415volts, 50Hz, 3 phase AC supply.</p>		1
9	<p>Vertical abrasive type polisher/whitener</p> <p>Semi-automatic polisher for De-branning of ragi grain with provision to vary machine speed/conditions while the machine is in operation.</p> <p>Vertical abrasive type Whiteners with Motor & Feeding hopper having 500kg to 1 ton/hr Milling Capacity with all necessary accessories i.e Flow Control Damper, Ampere Meter and Negative Air Pressure Meter Starter for motor, pulley, belts etc.</p> <p>The machine should be equipped with bran collection system, High-Pressure Bran Blower with motor, Collector Cyclone, Air Lock with Geared motor and supporting stand for cyclone & airlock, piping, bends, clamps etc</p> <p>Capacity: 500kg to 1ton/h</p> <p>The unit should be fitted with suitable continuous rated TEFC induction electric motor and starter of reputed make to run on 415volts, 50Hz, 3 phase AC supply.</p>		1

10	<p>Plansifter</p> <p>The plansifter is required for efficient sifting and grading of Ragi flour/semolina.</p> <p>Automatic machine should be equipped with self-cleaning rubber balls prevent choking and easy replaceable sieves(additional set of sieves for grading different size of semolina & flour(260micron) and screen tensioning system to be provided).</p> <p>1 set of the additional following size of sieves should be provide along with the machine:</p> <ul style="list-style-type: none"> a) Size of Sieve ; (-)16 BSS b) Size of Sieve ; (-)14+16 BSS c) Size of Sieve ; + 14 BSS d) Size of sieve; (-)16+25 BSS <ul style="list-style-type: none"> • Capacity – 500kg/h <p>The unit should be fitted with suitable continuous rated TEFC squirrel cage induction electric motor and starter of reputed make to run on 415volts, 50Hz, 3 phase AC supply.</p>		3
11	<p>Dust De-collector / Central dust collection system</p> <p>System integrated with all dust collecting point across the mill to collect the dust from bucket elevator/machinery wherever required which includes dust blower, collecting system, motor, and cyclone fitted with airlock and dust collecting bag</p>		1
12	<p>Bag filling machine with SS304 hopper/contact parts,</p> <p>Semi-Automatic high-speed processor-based electronic weighing system with standard load cells, double speed vibratory feeder and Pneumatically operated functions.</p> <p>Bag material: Cloth/gunny bags</p> <p>Range: 5 to 50Kgs with accuracy +30 to 60g</p>		1

P.S.: The Ragi Milling Machinerie supplier has to integrate the line with parboiling unit. This must be confirmed in your technical offer.

If possible make these three step combine in one system only by using conveyor passing through different heating & cooling zone for said period of time and temperature. Instead of loading and unloading by Bucket elevator



This whole Plant should be of 1ton holding capacity of grain (Dia 1mm) with bulk density of 830Kg/hr

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DATE	NAME	DESIGNATION	TITLE
08/01/2019	CHANDAN KUMAR	RESEARCH ASSISTANT	PROCESSING PLANT
SCALE	1:1		
DRAWING SHEET NO. 01			
PROJECT NO.			

Rev. 01

INSTRUCTIONS TO BIDDERS

1. The Instructions, Terms & Conditions, General Conditions of Contract (GCC), Special Conditions of Contract (SCC), Annexures and Formats hosted in our website www.cftri.res.in [Path: Home page → Tenders → Standard Tender Document (Scrolling Text)] constitute as an integral part of this tender.
2. Bidders should submit their Financial Bid in the format provided (Price Schedule Format/BOQ) and same has to be uploaded in the above etender.gov.in. It is mandatory for all the bidders to upload duly filled Price Schedule Format/BOQ towards submission of their Financial Bid. No changes or modification to the given format is acceptable. Bidders are required to go through the instructions carefully before filling the Price Schedule Format/BOQ.
3. Please note that CSIR-CFTRI, Mysore is registered with the Department of Scientific and Industrial Research (DSIR) for purpose of availing GST @5% concessional rate as per Central Tax(Rate)/Integrated Tax(Rate) in terms of Notification No. 45/2017-Central Tax (Rate)/No. 47/2017- Integrated (Rate) Dt. 14-11-2017. You are advised to quote accordingly.
4. Bid Security (EMD) is **Rs. 55,000.00 (Rupees fifty-five thousand only)** for this tender either by DD/BG from Scheduled Commercial Banks or **Bid Security Declaration(BSD)** Form (Annexure-4).
5. **Pre-Bid Conference (PBC):**
Pre-Bid Conference is scheduled on **8th July 2020 at 10.00 a.m in the Office of the Stores & Purchase Department, CSIR-CFTRI, Mysore.** In the present prevailing condition of **COVID-19** Pandemic, PBC either will be held in **person or through Video Conference** (Link can be shared with bidders who wish to participate in PBC). Interested bidders must confirm participation in PBC by email in advance) or any other electronic communication mode.

It is preferably advised that all prospective bidders may submit their clarifications/questions/queries if any in writing by email to sosp@cftri.res.in & cosp@cftri.res.in by **6th July 2020** so that any issue can be addressed during PBC scheduled on 8th July 2020. The amendments/clarifications if any, to the Bidding Documents pursuant to the Pre-Bid Conference would be uploaded in etenders.gov.in and same will also be hosted on the Website of CFTRI and all the Prospective Bidders are expected to take

cognizance of the Proceedings of the Pre-Bid Conference before formulating and submitting their Bids.

6. **Performance Security:** The supplier shall furnish Performance Security of **10% of the contract value** valid for warranty period of one year + additional 2 months after the warranty for this tender.
7. **Integrity Pact** is not applicable for this tender.
8. **Warranty:** One year from the date of supply, installation & Commissioning, demonstration and acceptance by the Purchaser.
9. **Delivery Period:** Delivery should be effected within 10-12 weeks from the date of issue of Purchase Order.
10. **Terms of Payment:** The method and conditions of payment to be made to the supplier under this Contract shall be as follows:

Payment for Goods and Services supplied from India:

Payment for Goods and Services supplied from within India shall be made in Indian Rupees [INR] only as follows:

A. On Delivery, Installation & Commissioning, Demonstration and Acceptance:

- a) 90 % (Ninety Percent) of the Contract Price shall be paid on Delivery of the Goods, Installation & Commissioning, Demonstration and Satisfactory Acceptance of Items & upon submission of the documents specified in GCC/SCC and the acceptance certificate issued by the Purchaser.
- b) Balance 10% payment will be made to the supplier against submission of Performance Security i.e 10% of Contract value valid for warranty period + additional 2 months issued by Scheduled Commercial Bank.

or

B. Inland Letter of Credit: The inland L/C will be confirmed at the suppliers cost, if requested specifically by the supplier. All bank charges shall be to the account of the beneficiary i.e. Supplier. If L/C is requested to be extended/ reinstated for reasons not attributable to the supplier, charges shall be to the account of the opener i.e. Purchaser. If L/C is requested to be extended/ reinstated for reasons not attributable to the Purchaser, the charges thereof would be to the Suppliers' account. The inland LC for 100% value of the contract shall be established. The payment shall be made in Indian

Rupees, as follows:

(a) 90 % (Ninety Percent) of the Contract Price shall be paid on Delivery of the Goods, Installation & Commissioning, Demonstration and Satisfactory Acceptance of Items & upon submission of the documents specified in GCC/SCC and the acceptance certificate issued by the Purchaser

(b) Balance 10% payment will be made to the supplier against submission of Performance Security i.e 10% of Contract value valid for warranty period + additional 2 months issued by Commercial Scheduled Bank.

COVER DETAILS - DOCUMENTS TO BE UPLOADED:

Cover - 1: PreQual/Technical Bid (Techno-Commercial Details) for Procurement of Ragi Milling Machineries (Document Type .pdf)

- 1.(a) Catalogue / Brochure of the Model Quoted along with a detailed description of the essential technical and performance characteristics of the goods being offered, with an item by-item commentary on the indented technical specification and documentary evidence of conformity of the goods and services to the bidding documents demonstrating substantial responsiveness of the goods being offered.
- (b) Two (2) latest Purchase Order Copies with price of reputed Govt. Research Institutes/Organisation or any other institutions for the supply & installation and satisfactory functioning of the similar/equivalent equipment to comply with minimum eligibility criteria.
- (c) User list for the quoted model along with contact Numbers and email ID
- (d) Warranty offered and delivery schedule.
2. Bidder Information Form (Annexure - 1)
3. Manufacturer's Authorization Form (Annexure - 2)
4. Bid Security Form (Annexure-3) / Bid Security Declaration Form (Annexure-4)
5. Performance Statement Form (Annexure - 5)
6. Deviation Statement Form (Annexure - 6)
7. Bidders must furnish a Compliance Statement of each and every required specification of our tender (Annexure-8)
8. Documents establishing goods eligibility and conformity to bidding

- document; indicating the Indian Customs Tariff Number (ICT & HSN No.)
9. Schedule of Requirements - (Refer Chapter 5 for Format)
 10. Declaration abiding by the Code of Integrity and No Conflict of Interest for Public procurement (Annexure - 11)

Cover - 2: Price Schedule Format/BOQ (Document Type. xl) BOQ uploaded in etenders.gov.in

Please refer to our Standard Tender's Terms & Conditions uploaded in www.cftri.res.in under tender (Chapter-7) for above Format of Annexures. Any other supporting documents to avail preference/benefits as per Standard Tender Document must be uploaded with the Technical bid for technical qualification.