

**बिड दस्तावेज़ / Bid Document**

बिड विवरण/Bid Details	
बिड बंद होने की तारीख/समय /Bid End Date/Time	09-02-2026 19:00:00
बिड खुलने की तारीख/समय /Bid Opening Date/Time	09-02-2026 19:30:00
बिड पेशकश वैधता (बंद होने की तारीख से)/Bid Offer Validity (From End Date)	180 (Days)
मंत्रालय/राज्य का नाम/Ministry/State Name	Ministry Of Agriculture And Farmers Welfare
विभाग का नाम/Department Name	Department Of Agricultural Research And Education (dare)
संगठन का नाम/Organisation Name	Indian Council Of Agricultural Research (icar)
कार्यालय का नाम/Office Name	National Rice Research Institute
कुल मात्रा/Total Quantity	4
वस्तु श्रेणी /Item Category	Continuous In-Line Rice Milling Unit (Capacity: 2 TPH)
GeMARPTS में खोजी गई स्ट्रिंग्स / Searched Strings used in GeMARPTS	Continuous In-Line Rice Milling Unit (Capacity: 2 TPH)
GeMARPTS में खोजा गया परिणाम / Searched Result generated in GeMARPTS	Ultrasonic based Fog Sanitizer
अधिसूचना के लिए चयनित प्रासंगिक श्रेणियाँ / Relevant Categories selected for notification	<ul style="list-style-type: none"> <li>• Mini Rice Mill</li> <li>• Mini Dal Mill</li> <li>• Milling Machine as per IS 6893, IS 8614, IS 9474</li> </ul>
वर्षों के अनुभव एवं टर्नओवर से एमएसई को छूट प्राप्त है / MSE Relaxation for Years Of Experience and Turnover	Yes   Complete
स्टार्टअप के लिए अनुभव के वर्षों और टर्नओवर से छूट प्रदान की गई है / Startup Relaxation for Years Of Experience and Turnover	Yes   Complete
विक्रेता से मांगे गए दस्तावेज़/Document required from seller	Certificate (Requested in ATC),OEM Authorization Certificate,Compliance of BoQ specification and supporting document *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer

**बिड विवरण/Bid Details**

क्या आप निविदाकारों द्वारा अपलोड किए गए दस्तावेजों को निविदा में भाग लेने वाले सभी निविदाकारों को दिखाना चाहते हैं? संदर्भ मेनू है/Do you want to show documents uploaded by bidders to all bidders participated in bid?	Yes (Documents submitted as part of a clarification or representation during the tender/bid process will also be displayed to other participated bidders after log in)
बिड लगाने की समय सीमा स्वतः नहीं बढ़ाने के लिए आवश्यक बिड की संख्या। / Minimum number of bids required to disable automatic bid extension	3
दिनों की संख्या, जिनके लिए बिड लगाने की समय-सीमा बढ़ाई जाएगी। / Number of days for which Bid would be auto-extended	7
ऑटो एक्सटेंशन अधिकतम कितनी बार किया जाना है। / Number of Auto Extension count	1
बिड से रिवर्स नीलामी सक्रिय किया/Bid to RA enabled	No
बिड का प्रकार/Type of Bid	Two Packet Bid
तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय /Time allowed for Technical Clarifications during technical evaluation	2 Days
निरीक्षण आवश्यक (सूचीबद्ध निरीक्षण प्राधिकरण /जेम के साथ पूर्व पंजीकृत एजेंसियों द्वारा)/Inspection Required (By Empanelled Inspection Authority / Agencies pre-registered with GeM)	No
मूल्यांकन पद्धति/Evaluation Method	Total value wise evaluation
मध्यस्थता खंड/Arbitration Clause	No
सुलह खंड/Mediation Clause	No

**ईएमडी विवरण/EMD Detail**

एडवाइजरी बैंक/Advisory Bank	State Bank of India
ईएमडी राशि/EMD Amount	800000

**ईपीबीजी विवरण /ePBG Detail**

एडवाइजरी बैंक/Advisory Bank	State Bank of India
ईपीबीजी प्रतिशत (%) /ePBG Percentage(%)	5.00
ईपीबीजी की आवश्यक अवधि (माह) /Duration of ePBG required (Months).	26

(a). जेम की शर्तों के अनुसार ईएमडी छूट के इच्छुक बिडर को संबंधित केटेगरी के लिए बिड के साथ वैध समर्थित दस्तावेज़ प्रस्तुत करने है। एमएसई केटेगरी के अंतर्गत केवल वस्तुओं के लिए विनिर्माता तथा सेवाओं के लिए सेवा प्रदाता ईएमडी से छूट के पात्र हैं। व्यापारियों को इस नीति के दायरे से बाहर रखा गया है।/EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category as per GeM GTC with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy.

(b).ईएमडी और संपादन जमानत राशि, जहां यह लागू होती है, लाभार्थी के पक्ष में होनी चाहिए। / EMD & Performance security should be in favour of Beneficiary, wherever it is applicable.

**लाभार्थी /Beneficiary :**

Director  
ICAR-Central Rice Research Institute (Formerly ICAR-National Rice Research Institute), Cuttack-753006  
(Director)

**UIN Number NCTGC2415P**

बोली विभाजन लागू नहीं किया गया/ Bid splitting not applied.

**एमआईआई खरीद वरीयता / MII Purchase Preference**

एमआईआई खरीद वरीयता / MII Purchase Preference	Yes
मेक इन इंडिया विक्रेताओं को खरीद में प्राथमिकता, यदि उनका मूल्य L1+X% तक की सीमा में है / Purchase Preference to MII sellers available upto price within L1+X%	20
मेक इन इंडिया खरीद में प्राथमिकता के लिए बिड की मात्रा का अधिकतम प्रतिशत / Maximum Percentage of Bid quantity for MII purchase preference	50
सार्वजनिक खरीद (मेक-इन-इंडिया को प्राथमिकता) आदेश 2017 के अनुसार केवल क्लास 1/क्लास 2 के स्थानीय आपूर्तिकर्ताओं को ही भागीदारी की अनुमति है दिनांक 16.09.2020 (समय-समय पर संशोधित एवं लागू) / Allow participation only from Class 1/Class 2 local suppliers as per the Public procurement(Preference to Make-in-india) order 2017 date 16.09.2020(as amended and applicable time to time)	Yes, in compliance with the MII ORDER : DPIIT Order(as amended and applicable time to time)

**एमएसई खरीद वरीयता/MSE Purchase Preference**

एमएसई खरीद वरीयता/MSE Purchase Preference	Yes
सूक्ष्म और लघु उद्यम मूल उपकरण निर्माताओं को खरीद में प्राथमिकता, यदि उनका मूल्य L1+X% तक की सीमा में हो / Purchase Preference to MSE OEMs available upto price within L1+X%	15
सूक्ष्म और लघु उद्यम को खरीद में प्राथमिकता के लिए बिड की मात्रा का अधिकतम प्रतिशत / Maximum Percentage of Bid quantity for MSE purchase preference	25

1. If the bidder is a Micro or Small Enterprise as per latest orders issued by Ministry of MSME, the bidder shall be relaxed from the eligibility criteria of "Experience Criteria" as defined above subject to meeting of quality and technical specifications. The bidder seeking Relaxation from Experience Criteria, shall upload the supporting documents to prove his eligibility for Relaxation.

2. If the bidder is a Micro or Small Enterprise (MSE) as per latest orders issued by Ministry of MSME, the bidder shall be relaxed from the eligibility criteria of "Bidder Turnover" as defined above subject to meeting of quality and technical specifications. If the bidder itself is MSE OEM of the offered products, it would be relaxed from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. The bidder seeking Relaxation from Turnover, shall upload the supporting documents to prove his eligibility for Relaxation.

3. If the bidder is a DPIIT registered Startup, the bidder shall be relaxed from the the eligibility criteria of "Experience Criteria" as defined above subject to their meeting of quality and technical specifications. The bidder seeking Relaxation from Experience Criteria, shall upload the supporting documents to prove his eligibility for Relaxation.

4. If the bidder is a DPIIT registered Startup, the bidder shall be relaxed from the the eligibility criteria of "Bidder Turnover" as defined above subject to their meeting of quality and technical specifications. If the bidder is DPIIT Registered OEM of the offered products, it would be relaxed from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. The bidder seeking Relaxation from Turnover shall upload the supporting documents to prove his eligibility for Relaxation.

5. Preference to Make In India products (For bids < 200 Crore):Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is denoted in the bid document. If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 04.06.2020. Only Class-I and Class-II Local suppliers as per MII order dated 4.6.2020 will be eligible to bid. Non - Local suppliers as per MII order dated 04.06.2020 are not eligible to participate. However, eligible micro and small enterprises will be allowed to participate .The buyers are advised to refer the OM No.F.1/4/2021-PPD dated 18.05.2023. [OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017.

6. Purchase preference will be given to MSEs having valid Udyam Registration and whose credentials are validated online through Udyam Registration portal as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail themselves of the Purchase preference, the bidder must be the manufacturer / OEM of the offered product on GeM. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises and hence resellers offering products manufactured by some other OEM are not eligible for any purchase preference. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service and Buyer will decide eligibility for purchase preference based on documentary evidence submitted, while evaluating the bid. If L-1 is not an MSE and MSE Seller (s) has / have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such MSE Seller shall be given opportunity to match L-1 price and contract will be awarded for 25% (selected by Buyer) percentage of total quantity. The buyers are advised to refer the OM No. F.1/4/2021-PPD dated 18.05.2023 [OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017. Benefits of MSE will be allowed only if seller is validated on-line in GeM profile as well as validated and approved by Buyer after evaluation of documents submitted.

### **Continuous In-Line Rice Milling Unit (Capacity: 2 TPH) ( 4 pieces )**

**(क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक/Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively)**

#### **तकनीकी विशिष्टियाँ /Technical Specifications**

क्रेता विशिष्टि दस्तावेज़ /Buyer Specification Document	<a href="#">Download</a>
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**परेषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity**

क्र.सं./S.N o.	परेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Sutapa Sarkar	753006,National Rice Research Institute, Bidyadharpur, Cuttack	4	30

**क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें/Buyer Added Bid Specific Terms and Conditions**

**1. Generic**

OPTION CLAUSE: The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity up to 25% of the contracted quantity during the currency of the contract at the contracted rates. The delivery period of quantity shall commence from the last date of original delivery order and in cases where option clause is exercised during the extended delivery period the additional time shall commence from the last date of extended delivery period. The additional delivery time shall be  $(\text{Increased quantity} \div \text{Original quantity}) \times \text{Original delivery period (in days)}$ , subject to minimum of 30 days. If the original delivery period is less than 30 days, the additional time equals the original delivery period. The Purchaser may extend this calculated delivery duration up to the original delivery period while exercising the option clause. Bidders must comply with these terms.

**2. Forms of EMD and PBG**

Successful Bidder can submit the Performance Security in the form of Payment online through RTGS / internet banking also (besides PBG which is allowed as per GeM GTC). On-line payment shall be in Beneficiary name

ICAR UNIT CRR, Cuttack  
Account No.  
10329386033  
IFSC Code  
SBIN0002094  
Bank Name  
State Bank of India  
Branch address  
Nayabazar, Cuttack-4

. Successful Bidder to indicate Contract number and name of Seller entity in the transaction details field at the time of on-line transfer. Bidder has to upload scanned copy / proof of the Online Payment Transfer in place of PBG within 15 days of award of contract.

**3. Forms of EMD and PBG**

Bidders can also submit the EMD with Payment online through RTGS / internet banking in Beneficiary name

ICAR UNIT CRR, Cuttack  
Account No.  
10329386033  
IFSC Code  
SBIN0002094  
Bank Name

State Bank of India  
Branch address  
Nayabazar, Cuttack-4

.  
Bidder to indicate bid number and name of bidding entity in the transaction details field at the time of on-line transfer. Bidder has to upload scanned copy / proof of the Online Payment Transfer along with bid.

**4. Certificates**

Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.

**5. Buyer Added Bid Specific ATC**

Buyer Added text based ATC clauses

Copy of original Manufacturer literature/Product Catalogue/Brochure of the OEM indicating technical specifications of the particular Make & Model of equipment/ instrument offered in the bid along with valid installation certificate of similar items to be submitted by the bidder failing which the bid is liable to be rejected. The quoted make & model should be available in the bidder's website for verification. The Bidder should submit the manufacturer's authorization certificate indicating the name of the item, bid number etc.

**6. Rate Contract**

Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.

**7. Generic**

Data Sheet of the product(s) offered in the bid, are to be uploaded along with the bid documents. Buyers can match and verify the Data Sheet with the product specifications offered. In case of any unexplained mismatch of technical parameters, the bid is liable for rejection.

**8. Service & Support**

Dedicated /toll Free Telephone No. for Service Support : BIDDER/OEM must have Dedicated/toll Free Telephone No. for Service Support.

**9. Service & Support**

Escalation Matrix For Service Support : Bidder/OEM must provide Escalation Matrix of Telephone Numbers for Service Support.

**10. Generic**

Actual delivery (and Installation & Commissioning (if covered in scope of supply)) is to be done at following address

Refer tender document (i.e. Equipment delivery site Details)

.  
. .  
. .  
. .  
. .

**11. Generic**

Installation, Commissioning, Testing, Configuration, Training (if any - which ever is applicable as per scope of supply) is to be carried out by OEM / OEM Certified resource or OEM authorised Reseller.

**12. Generic**

**Manufacturer Authorization:** Wherever Authorised Distributors/service providers are submitting the bid, Authorisation Form /Certificate with OEM/Original Service Provider details such as name, designation, address, e-mail Id and Phone No. required to be furnished along with the bid

### 13. Scope of Supply

Scope of supply (Bid price to include all cost components) : Supply Installation Testing Commissioning of Goods and Training of operators and providing Statutory Clearances required (if any)

### अस्वीकरण/Disclaimer

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. If any clause(s) is / are incorporated by the Buyer regarding following, the bid and resultant contracts shall be treated as null and void and such bids may be cancelled by GeM at any stage of bidding process without any notice:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process. (However, in bids for [attached categories](#), trials are allowed as per approved procurement policy of the buyer nodal Ministries)
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.
15. Buyer added ATC Clauses which are in contravention of clauses defined by buyer in system generated bid template as indicated above in the Bid Details section, EMD Detail, ePBG Detail and MII and MSE Purchase Preference sections of the bid, unless otherwise allowed by GeM GTC.
16. In a category based bid, adding additional items, through buyer added additional scope of work/ additional terms and conditions/or any other document. If buyer needs more items along with the main item, the same must be added through bunching category based items or by bunching custom catalogs or bunching a BoQ with the main category based item, the same must not be done through ATC or Scope of Work.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

**All GeM Sellers/Service Providers shall ensure full compliance with all applicable labour laws,**

including the provisions, rules, schemes and guidelines under the four Labour Codes i.e. the Code on Wages, 2019; the Industrial Relations Code, 2020; the Occupational Safety, Health and Working Conditions Code, 2020; and the Code on Social Security, 2020 as and when notified and brought into force by the Government of India.

For all provisions of the Labour Codes that are pending operationalisation through rules, schemes or notifications, the corresponding provisions of the pre-existing labour enactments (such as The Minimum Wages Act, 1948, The Payment of Wages Act, 1936, The Payment of Bonus Act, 1965, The Equal Remuneration Act, 1976, The Payment of Gratuity Act, 1972, etc. and relevant State Rules) shall continue to remain applicable.

The Seller/ Service Providers shall, therefore, be responsible for ensuring compliance under:

- All notified and enforceable provisions of the new Labour Codes as mentioned hereinabove; and
- All operative provisions of the erstwhile Labour Laws until their complete substitution.

All obligations relating to wages, social security, safety, working conditions, industrial relations etc. and any other statutory requirements shall be strictly met by the Seller/ Service Provider. Any non-compliance shall constitute a breach of the contract and shall entitle the Buyer to take appropriate action in accordance with the contract and applicable law.

[यह बिड सामान्य शर्तों के अंतर्गत भी शासित है /This Bid is also governed by the General Terms and Conditions](#)

जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो। बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्रवाई का आधार होगा।/In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws.

---धन्यवाद/Thank You---

## TECHNICAL SPECIFICATIONS

### Continuous In-Line Rice Milling Unit (Capacity: 2 TPH)

#### 1. Scope of Supply

The system shall comprise a **complete continuous in-line rice milling unit of 2 TPH capacity**, suitable for **research, demonstration, and semi-commercial operation**, including supply, installation, commissioning, testing, and training. Four units of the **Continuous In-Line Rice Milling Unit (Capacity: 2 TPH)** are to be supplied for installation at four different project sites (**Mayurbhanj, Koraput, Kandhamal and Kalahandi**).

The milling line shall include the following equipment (**For each location**):

- A. Paddy Pre-Cleaner
- B. De-Stoner
- C. Rubber Roll Dehusker with Aspirator
- D. Paddy Separator
- E. Rice Whitener
- F. Rice Polisher
- G. Rice Length Grader
- H. Rice Weighing & Packaging Machine
- I. Optical Sorter (SORTEX System)
- J. Elevators, Conveyors & Interconnections (Mandatory)
- K. DG Set (for power backup)
- L. Computer System (for control & monitoring)

#### 2. General Technical Requirements (Applicable to All Equipment) (For each location)

1. All machines shall be **new, unused, latest model**, and designed for **continuous operation at 2 TPH**.
2. Construction material shall be **Mild Steel (MS)** or **Stainless Steel (SS-304)** or MS with **food-grade coating** for all grain-contact parts.
3. All **rotating and moving parts** shall be fully covered with **safety guards**.
4. Equipment shall be designed for **low noise, low vibration, energy efficiency, and minimal maintenance**.
5. Each machine shall be **suitably connected to bucket elevators/conveyors** for continuous in-line operation.
6. All motors shall be of **standard make (Crompton / Kirloskar / Havells / equivalent)**.
7. **Warranty**: Minimum **2 years comprehensive warranty** from the date of installation.
8. **Local service support** shall be available. Service response within **15 days** of complaint.
9. **Spare parts and accessories** required for smooth operation shall be supplied.
10. Equipment shall comply with **ISO / CE / relevant international safety standards**, with documentary proof.
11. A **detailed compliance sheet** against each specification clause must be submitted.

#### 3. Electrical & Utilities Requirements (For each location)

1. The complete system shall operate on **415 V ±10%, 50 Hz, 3-Phase AC supply**. (Single-phase power may be used only for control circuits and auxiliaries.)
2. Supplier shall declare:
  - Total connected load (kW / HP)

- Running load
  - Peak load
3. Stabilizers shall be supplied wherever specified.
  4. Compressed air system required for Sortex shall be included within supplier scope.

#### **4. DG Set (Backup Power) (For each location)**

1. Capacity: 75 kVA diesel generator (prime power)
  - Sized to support critical loads including mill main equipment, elevators, Sortex, and auxiliaries.
  - Must provide stable power for smooth operation during grid failure.
2. DG set shall be silent type with acoustic enclosure.
3. Fuel tank capacity: Minimum 8–10 hours of continuous operation.
4. Starter: Electric start with automatic alternator voltage regulator.
5. Must include AMF panel (Automatic Mains Failure) for auto-start on grid failure.
6. DG set installation, exhaust, and fuel piping shall be included.
7. Warranty: 2 years / 2000 hours, whichever is earlier.

#### **5. Computer System (For each location)**

1. Supplier shall provide 1 computer workstation for monitoring, reporting, and control (optional PLC/HMI interface if required by Sortex or polishing line).
2. Minimum specifications:
  - CPU: Intel Core i5 or higher
  - RAM: 16 GB
  - Storage: 512 GB SSD
  - Monitor: 24-inch LED
  - OS: Windows 11 / compatible
  - Pre-installed MS Office & required monitoring software
3. Computer shall be networked with the milling line for control/logging wherever applicable.
4. UPS (1 kVA) for the computer shall be supplied to avoid data loss during power fluctuations.
5. The computer must be associated with a printer with the following specifications:
  - OS Support: Full driver support for Windows 11 (native or OEM drivers) — ensure the model explicitly lists Windows 11 support in official specs.
  - Network Printing: Ethernet (100/1000 Mbps) + Wi-Fi (optional) — so the printer can be shared across the workstations via LAN or USB-A (for direct connection if needed).
  - Mobile/Remote Printing: Optional support for ePrint/IPP (useful for multi-device offices).
  - Printer Type: Laser or Inkjet All-in-One (MFP) with Print/Scan/Copy.
  - Duplex Printing: Automatic double-sided printing
  - ADF (Automatic Document Feeder): For batch scanning/copying
  - Resolution: Min 600 × 600 dpi (text sharpness) or more
  - Paper Size: A4 (standard), support for India-Legal/Letter as needed.
  - Monthly Duty Cycle: ~5,000 – 15,000+ pages depending on workload.
  - Print Speed: ≥ 20 ppm (pages/min) for office workloads.
  - Memory: Enough internal memory to handle large jobs (often 256 MB+ in business models)

#### **6. Paddy and Rice Silos (For each location)**

- a) Food-grade MS / SS-304 / Galvanized Steel construction
- b) Smooth internal surface, corrosion-resistant
- c) Design standards: IS 4995 / IS 2795 / equivalent
- d) No. of silos required: 2 with capacity 8-10 tonnes.
- e) Cylindrical vertical with conical bottom
- f) Include ventilation / aeration fans
- g) Discharge: gravity cone with slide gate compatible with elevators
- h) Inspection manholes and ladders for safe maintenance
- i) Pest-resistant and dust-proof
- j) Power for aeration fans: 230 V / 50 Hz
- k) Warranty: 2 years, local support within 15 days
- l) Compliance with ISO / CE / BIS / relevant safety standard

## **7. Detailed Equipment Specifications (For each location)**

### **A. Paddy Pre-Cleaner (2 TPH) (For each location)**

1. Capacity: **≥ 2 TPH**
2. Cleaning efficiency: **85–90%**
3. Screens: Minimum **3 perforated screens** for removal of light and heavy impurities
4. Screen material: MS / SS  
Screen size: **≥ 700 × 500 mm**
5. Overall dimensions: **≥ 1400 × 1100 × 2000 mm (L × B × H)**
6. Blower motor: **≥ 2 HP**
7. Control system for pre-aspiration and blower air
8. Light impurity collection by **auger system**
9. Drive mechanism: **Eccentric motor or Vibro motor**
10. Low noise, low power consumption design
11. Elevator connection mandatory

### **B. De-Stoner (≥ 2 TPH) (For each location)**

1. Efficient separation of stones, metal, glass, and high-density impurities
2. Capacity: **≥ 2 TPH**
3. Screen width: **≥ 800 mm**
4. Overall dimensions: **≥ 1100 × 900 × 1300 mm**
5. Motors:
  - Vibro motors: **2 × 0.5 HP**
  - Blower motor: **≥ 5 HP**
6. Uniform hopper feed with flow control
7. Elevator connection mandatory

### **C. Rubber Roll Dehusker with Aspirator (2 TPH) (For each location)**

1. Capacity: **≥ 2 TPH**
2. Husking efficiency: **≥ 85%**
3. Rubber roll size: **≥ 250 × 250 mm**, hardness **≥ 80°**
4. Main shaft speed: **≥ 1000 RPM**
5. Aspirator fan speed: **≥ 1200 RPM**
6. Coil spring diameter: **≥ 6 mm**
7. Power:
  - Dehusker motor: **5 HP**
  - Aspirator blower: **1–2 HP**
  - Total installed power: **≤ 10 HP**

8. Separate outlets for husk and brown rice
9. Drive type: **Belt-driven or direct motor drive**
10. Additional 20 nos. of rubber rolls should be provided.
11. Suitable for different rice varieties

**D. Paddy Separator (2 TPH) (For each location)**

1. Capacity:  $\geq 2$  TPH
2. Advanced technology with compact structure
3. Power consumption:  $\leq 2$  HP
4. Dimensions:  $\geq 1500 \times 1100 \times 1500$  mm
5. Minimum **2 fans** with independent airflow control
6. Vibration pads for noise reduction
7. Elevator connection mandatory

**E. Rice Whitener (2 TPH) (For each location)**

1. Bran removal efficiency:  $\geq 90\%$
2. Vertical abrasive type, top-to-bottom working principle
3. Grinding wheels: **Silicon carbide (Grits 16, 24, 30, 36)**
4. Dimensions:  $\geq 1600 \times 1000 \times 2000$  mm
5. Weight:  $\geq 600$  kg
6. Power:  $\leq 20$  HP
7. Spring-controlled polish adjustment
8. Separate outlets for whitened rice and bran
9. Easy replacement of wear parts
10. Stabilizer to be supplied

**F. Rice Polisher (2 TPH) (For each location)**

1. Capacity:  $\geq 2$  TPH
2. Designed to enhance rice glossiness
3. Equipped with:
  - Stainless steel water jet nozzles
  - Alloy steel beaters
  - Punched sieves
  - Cooling blower
4. Automatic feeding and water pump control with sensor & timer
5. Roller type: **Cylindrical / spiral friction roller**
6. Dimensions:  $\geq 1700 \times 1000 \times 2000$  mm
7. Weight:  $\geq 500$  kg
8. Heavy rigid structure for noiseless operation
9. Stabilizer to be supplied

**G. Rice Length Grader (2 TPH) (For each location)**

1. Capacity:  $\geq 2$  TPH
2. Separation of broken and head rice with  $\geq 90\%$  head rice recovery
3. Rotating indented cylinders: **4 Nos. (2.5mm, 3.5mm, 4.5mm, 5.5mm, 6.5mm) of different sizes pertaining to small, medium and slender rice grains.**
4. Cylinder size:  $\text{Ø } 400\text{--}500 \text{ mm} \times 1200\text{--}1500 \text{ mm}$
5. Overall size:  $\sim 2200 \times 800 \times 1800$  mm
6. Weight: **600–700 kg**
7. Screw conveyor for broken rice discharge

8. Stabilizer to be supplied

#### **H. Rice Weighing & Packaging Machine (For each location)**

1. Packing sizes: **1kg, 5 kg, 25 kg, 50 kg**
2. Pneumatic bag holding: **Up to 75 kg**
3. Accuracy: **± 25 g**
4. Speed: **4–8 bags/min**
5. Construction: **Mostly Stainless Steel**
6. Open mouth bag type
7. Air pressure requirement: **≤ 6 kg/cm<sup>2</sup>**
8. Elevator connection mandatory
9. The machine must be provided with PE rolls (at least for packing 2 tonnes rice) suitable for packaging.
10. PE/PP lamination/BOPP for 5kg–50kg (120–200µm thickness) rice bags requiring toughness and tear resistance.
11. PET/PE lamination for printed 1kg–5kg (Approx. 60–120µm thickness) retail pouches with high gloss and stiffness

#### **I. SORTEX (Optical Color Sorter) (For each location)**

1. Sorting based on **colour and size**
2. Cameras: **≥ 6 (3 front + 3 rear)**
3. Camera type: **5400 × 3 pixel Trichromatic CCD**
4. Channels: **189/189**
5. Chutes: Primary (2) + Secondary (1)
6. Air compressor:
  - 20 HP hybrid screw type
  - 500 L receiver tank
  - Airflow: **≥ 88 CFM**
  - Pressure: **≥ 8 bar**
7. Cooling: Air-cooled
8. Stabilizer: **3 kW**
9. Grain dischargers: **4 Nos., 25 ft height**
10. Elevator connection mandatory

#### **J. No. of elevators (8) and conveyors (4) required is as follows:**

<b>Sl. No.</b>	<b>Equipment Type</b>	<b>Tag</b>	<b>Material Handled</b>	<b>From → To</b>	<b>Typical Capacity</b>
1	Bucket Elevator	E1	Raw paddy	Paddy pit → Pre-cleaner	2.5–3 TPH
2	Bucket Elevator	E2	Clean paddy	Pre-cleaner → Dehusker	2.5–3 TPH
3	Bucket Elevator	E3	Brown rice	Dehusker → Paddy separator	2.5–3 TPH
4	Bucket Elevator	E4	Brown rice	Separator → Whitener/Polisher	2.5–3 TPH
5	Bucket Elevator	E5	Polished rice	Whitener → Rice grader	2.5–3 TPH
6	Bucket Elevator	E6	Head rice	Grader → Sortex feed	2.5–3 TPH
7	Bucket Elevator	E7	Accepted rice	Sortex → Packing bin	2.5–3 TPH

8	Bucket Elevator	E8	Rejects / brokens	Sortex → Reject bin	1–2 TPH
9	Screw / Belt Conveyor	C1	Raw paddy	Paddy storage → E1	2–3 TPH
10	Screw Conveyor	C2	Husk	Dehusker → Husk bin	1–1.5 TPH
11	Screw Conveyor	C3	Bran	Whitener → Bran bin	0.5–1 TPH
12	Belt / Screw Conveyor	C4	Broken rice	Grader/Sortex → Broken bin	0.5–1 TPH

## K. Additional accessories

### A) DIGITAL MOISTURE METER (03 no. at each location)

- i. The moisture must be digital, portable, handheld, battery operated with capacitance / electrical resistance (non-destructive) testing method.
- ii. Moisture range: 8% – 35% (wet basis)  
(Suitable for paddy, rice, wheat, maize, pulses)
- iii. It must have an accuracy of  $\pm 0.5\%$ , Resolution: 0.1% and Repeatability:  $\pm 0.2\%$
- iv. Factory-calibrated and selectable for Paddy (raw & parboiled), Rice, Wheat, Maize, Barley, Pulses (tur, gram, moong, etc.)
- v. Sample size: 100–300 g with measurement time:  $\leq 10$  seconds
- vi. Non-destructive testing (sample reusable) with Stainless steel sensing chamber / probe
- vii. Display should be Digital LCD with backlight with display parameters as Moisture (%), Grain type, Temperature ( $^{\circ}\text{C}$ )
- viii. Power Supply: 9V battery / AA batteries / rechargeable battery at operating temperature:  $0^{\circ}\text{C}$  to  $50^{\circ}\text{C}$  with RH tolerance upto 90%
- ix. Internal memory:  $\geq 100$  readings with Data output (optional but preferred): USB / Bluetooth
- x. Construction material must be Rugged, impact-resistant ABS / metal along with weight of less than 1 kg
- xi. Calibration should be as per ISO or NABL standards and calibration certificate is Mandatory
- xii. Must provide accessories as Carrying case, user manual, batteries, charger.

### B) HEAVY DUTY WEIGHING BALANCE (02 no. at each location)

- i. Type: Electronic platform weighing balance
- ii. Application: Weighing of food grain bags, warehouse materials
- iii. Installation: Floor-mounted
- iv. Operation: Digital, AC powered with battery backup
- v. Maximum capacity: 500 kg
- vi. Minimum capacity: 1 kg
- vii. Least count / readability: 100 g
- viii. Accuracy:  $\pm 0.02\%$  to  $\pm 0.05\%$  of full scale
- ix. Repeatability:  $\pm 1$  division
- x. Tare facility: Full-range tare
- xi. Platform size:  $900 \times 900$  mm (minimum)
- xii. Platform material: Mild steel with anti-skid checkered plate
- xiii. Load cells: 4 compression-type load cells with Overload protection Up to 150% of rated capacity
- xiv. Display type: Bright LED / LCD with display indication in weight (kg) and zero/Tare

- xv. Indicator mounting: Pole-mounted / wall-mounted
- xvi. Power supply: 230 V AC, 50 Hz with Battery backup: In-built rechargeable battery operating minimum 8 hours and auto power off facility.
- xvii. It should operate smoothly temperature at 0°C to 50°C with RH upto 90%
- xviii. Platform structure: Heavy-duty, corrosion-resistant with Indicator enclosure made of ABS / metal having Dust and splash resistant
- xix. Accessories: Indicator stand / pole, Power cable, User manual, Calibration certificate
- xx. Calibration certificate: Mandatory with Legal Metrology certified
- xxi. Warranty: Minimum 1 year

## **5. Documentation & Tender Compliance**

1. **Original manufacturer brochures** with web links must be submitted.
2. Detailed **technical compliance sheet** mandatory.
3. GA drawings, layout, and utility requirements must be provided.
4. Warranty shall commence from **date of installation**.
5. Cost shall include **all taxes, packing, forwarding, freight, and delivery** up to 4 project locations (**Mayurbhanj, Koraput, Kandhamal and Kalahandi**) of **ICAR-CRRI, Cuttack**.
6. Responsibility for **custom clearance (if applicable)** lies with the supplier.

**Equipment delivery site Details:**

<b>Sl. No.</b>	<b>FPO Name</b>	<b>District</b>	<b>Area</b>	<b>Plot/Khata No.</b>
1	Mangluraja Arorice 4S4R Farmer Producer Company Limited	KALAHANDI	Kamthana, Bhabanipatna, Kalahandi, 766002	Khata No-361 Plot No-1275
2	Raikia Block Arorice 4S4R Farmer Producer Company Limited	KANDHAMAL	Raikia, Kandhamal, 762101	Khata No-619/914 Plot No-3457/4823
3	Mayurbhanj Arorice 4S4R Farmer Producer Company Limited	MAYURBHANJ	Borio, Jashipur, Mayurbhanj, 757034	Khata No-281/130
4	Koraput Arorice 4S4R Farmer Producer Company Limited	KORAPUT	Dhanapur, Jeypore, Koraput	Khata No-251/1084 Plot No-723