



THE M.P. STATE AGRO INDUSTRIES DEVELOPMENT CORPORATION LIMITED

PANCHANAN, 3 rd FLOOR, MALVIYA NAGAR, BHOPAL

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**ONLINE
TENDER DOCUMENT**

FOR SUPPLY AND INSTALLATION OF PLANT

**(FULLY AUTOMATIC PLANT FOR MANUFACTURING OF POWDER RECIPE AND
KHICHADI MIX INCLUDING ELECTRIFICATION AND AUTOMATION)**

**CAPACITY 600 MT PER MONTH
PLACE- HOSHANGABAD**

DUE ON 21.05.2018



**THE MADHYA PRADESH STATE AGRO INDUSTRIES
DEVELOPMENT Corporation LIMITED**

"PANCHANAN" 3rd FLOOR, MALAVIYA NAGAR, BHOPAL

Phone (0755)- 2551652, 2551756, 2761392, Fax: 0755-2557305

No.HO/RTE/SRLM/531/10

Dated: 26.04.2018

E-TENDER NOTICE (II CALL)

Online Tenders are invited for the following items:-

TENDER NUMBER	PARTICULARS	TENDER DOCUMENTS FEE	E.M.D.
01	LABORATORY EQUIPMENTS	12,500	1,25,000
02	THERMO PACK	12,500	1,65,000
03	T.T.O. PRINTERS	10,000	90,000
04	FULLY AUTOMATIC PLANT FOR PRODUCTION OF 2500 MT S.N.F. EVERY MONTH AT SHIVPURI	15,000	5,00,000
05	FULLY AUTOMATIC PLANT FOR PRODUCTION OF 2500 MT S.N.F. EVERY MONTH AT MANDLA	15,000	5,00,000
06	FULLY AUTOMATIC PLANT FOR PRODUCTION OF 2500 MT S.N.F. EVERY MONTH AT SAGAR	15,000	5,00,000
07	FULLY AUTOMATIC PLANT FOR PRODUCTION OF 2500 MT S.N.F. EVERY MONTH AT DEWAS	15,000	5,00,000
08	FULLY AUTOMATIC PLANT FOR PRODUCTION OF 2500 MT S.N.F. EVERY MONTH AT DHAR	15,000	5,00,000
09	FULLY AUTOMATIC PLANT FOR PRODUCTION OF 2500 MT S.N.F. EVERY MONTH AT REWA	15,000	5,00,000
10	FULLY AUTOMATIC PLANT FOR PRODUCTION OF 600 MT S.N.F. EVERY MONTH AT HOSHANGABAD	15,000	3,50,000
11	FULLY AUTOMATIC PLANT FOR PRODUCTION OF 700 MT KHICHADI EVERY MONTH AT BADI (RAISEN)	12,500	1,25,000

Tender documents for above tender can be purchased by paying online at www.mpeproc.gov.in by 21.05.2018 up to 14.00 hrs, and can be submitted by 15.00 hrs on the same day. The detailed tender and other information can be seen at Corporation's website www.mpagro.org and www.mpeproc.gov.in. Amendments, if any, will be published only on above websites. No further notification will be made in the news papers.

GENERAL MANAGER (RTE)

**THE M.P. STATE AGRO INDUSTRIES DEVELOPMENT CORPORATION
LIMITED**

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MEANING OF THE WORDS USED IN THIS DOCUMENT

1.	The Corporation / MPSAIDC	-	M.P. State Agro Industries Development Corporation Ltd.
2.	Beneficiary/ Consignee	-	The C.E.O. M.P. State Rural Livelihood Mission/ and The Corporation.
3.	Plant		Fully automatic plant for manufacturing of Supplementary Nutrition Food (SNF) powder recipe and khichadi mix including supply of items as per specification, installation, electrification and automation
4.	The Bid/Tender		The Bid or tender submitted by the Bidder
5.	Bidder/Tenderer	-	The Manufacturer/ Authorized Distributor who submit Bid for supply of Items as per document.
6.	The Supplier	-	The successful Bidder from whom agreement is executed.
7.	Documents	-	The Tender/Bid documents with all attached Annexure.
8.	Authorized person -	-	The person who signs the bid documents and who is authorized to bind the bidder to the contract. (Proof of authorization shall be furnished in the form of registered power of attorney, which shall annex with the documents).
9.	EMD	-	Earnest Money Deposit
10.	Department	-	M.P. State Rural Livelihood Mission.
11.	The Corporation		M P State Agro Industries Development Corporation Ltd Bhopal
12.	Managing Director	-	Managing Director of M P State Agro Industries Development Corporation Ltd Bhopal

GENERAL TERMS AND CONDITIONS

A. DISCLAIMER

Though adequate care has been taken in the preparation of this TENDER document. The Bidder should satisfy himself that the document is complete in all respect. Intimation of discrepancy, if any, should be informed before/during pre bid meeting through email or in writing.

B. DOCUMENT FEE, EMD AND SCHEDULE OF TENDER BIDDING PROCESS

NO EXEMPTATION IS APPLICABLE FOR TENDER DOCUMENT FEE AND EMD

The Tender Document (TENDER) is invited under E- Tender system. Bidding process will have following steps:

Tender Document Fee	Rs 15,000 (shall be paid online)
Earnest Money Deposit (EMD)	Rs. 5,00,000(shall be paid through Demand Draft (scan copy of DD shall be uploaded on the portal)
Date and time of start of purchase and submission of Tender Documents	2:00 PM ON 28.04.2018
Date and time of end of submission of Bids(Technical/Financial Bids both)	UP TO 3:00 PM ON 21.05.2018
Date and time of opening of Technical Bid	04.00 PM ON 21.05.2018
Tentative date and Time of opening of Financial Bids of qualified Bidder	Will be published on Notice Board and WEBSITE of the Corporation.

C. Opening date of Financial bid of eligible Bidder will be published on Notice Board and uploaded on website of the Corporation as Corrigendum. Each stage of bidding process will take place at scheduled in B above on the date and time mentioned against them. However if there is any change in the date and time, information will be uploaded on Corporation's web site as corrigendum and will be informed to the bidder through e mail address as given in Annexure XI .

D. PRE-BID MEETING

- a. Pre Bid meeting will be held in the office of The Development Commissioner B Wing II Floor, Vindhyachal Bhawan, Bhopal on 9th May 2018 at 13.00 hrs. Any change in the schedule of pre-bid meeting would be communicated on the website only, intimation to bidders would not be given separately.
- b. Any prospective bidder may raise his queries and/or seek clarifications in writing before or during the pre-bid meeting. The purpose of such meeting is to clarify issues and answer questions on any matter that may be raised at that stage. The Corporation may, at its option, give such clarifications as are felt necessary.
- c. Pursuant to the pre-bid meeting if the Corporation deems it necessary to amend the Bid Document, it shall be done by issuing Corrigendum. In case of non-receipt of any such intimation, it shall be deemed that the Bidder is satisfied that the document is complete in all respects.

BRIEF DESCRIPTION ABOUT THE POWDER PLANT

All the bidders are free to design the process flow sheet and plant layout so as to meet out the Product specifications and Hygiene requirement of this Tender. The production process and plant layout should meet out the relevant Food safety standards of FSSAI, HACCP, GMP, ISO and applicable law / permits.

Bidders are also free to select the best suitable machines for the production process however they must ensure that the process offered by them should minimally follow the brief process described as under.

The Plant and machinery can broadly be divided in 7 sections/parts:

- 1- Grain Cleaning and Storage section.
- 2- Grain Blending and Grinding Section
- 3- Flour Roasting and Cooling Section
- 4- Additive Storage and Blending Section
- 5- Packing Section
- 6- Steel Structure (Platform) & Storage Bins
- 7- Electrical Control and Automation

1.0 Grain Cleaning and Storage Section:

Raw material storage area should be totally isolated from the Processing area. All the Grains (Wheat and Chana Dal) shall be stored separately in this Raw material godown. These grains shall be then cleaned in the Cleaning section of this plant so as to remove all types of foreign impurities before further processing.

The cleaning section shall have one cleaning line for wheat and Chana Dal (by changing sieve as per requirement).

After cleaning different types of grains shall be stored in separate Storage Bins.

Material of construction of all the machines, storage bins and spouting (interconnecting pipes and hoppers, etc) used in the cleaning section shall be MS, CI, etc. All sheets, plates, structural frames, etc. shall be of BIS standard and where BIS standard is not available should be of suitable thickness for a reasonable life and trouble free performance of the machines.

All the steel, bearings, V belts, chains, couplings, sprockets, lubricants, motors, geared motors, gear boxes, etc. should be of reputed make and as per suitable BIS standards.

All the machines should preferably be painted with the Epoxy Paint. Before painting the entire metal surface should be properly cleaned (de-rusting, de-greasing, de-oiling, etc.) and coated with suitable Primer and Surfacer.

1.1 Cleaning line for Wheat and Chana Dal, Capacity 1.5 TPH.

The main machines to be used in this cleaning line are:-

Description	Size & Qty
Reel machine or Drum Sieve (2 screen type) for the separation of big and small size impurities. MOC : MS	1 no.
Grain Cleaner (2 or 3 deck) with Aspiration channel for the separation of big size, small size and lighter impurities. MOC : MS	1 no.
Central Aspiration system comprising of suitable size Fan, Cyclone, Airlock, etc. for the removal of light impurities and dust from all the machines and TO keep the process section dust free. MOC : MS and GI ducting	1 set
Destoner (suction type) with suitable size Fan, Cyclone, Airlock, etc for the separation of stones and other heavy impurities. MOC : MS and GI ducting	1 set
Magnets for the separation of ferrous impurities. MOC : Suitable	Suitable
Bucket Elevators for vertical conveying of Grains. MOC : MS	Suitable
Screw Conveyors for Horizontal conveying of Grains. MOC : MS	Suitable
Storage Bins of Capacity 8 MT for Wheat. MOC : MS	1 no.
Storage Bins of Capacity 1 MT for Chana Dal, Other grains. MOC : MS	2 nos.

2.0 Grain Blending and Grinding Section, Capacity 1 TPH :

All the grains stored in different storage bins shall be discharged volumetrically, automatically, in the desired ratio, as per the product recipe and blended homogeneously before grinding into flour. This flour shall be screened properly to remove oversize material before storage into the Bin.

The rate of flow of different ingredients shall be automatically controlled by simply selecting any of the preset recipes on the Process control screen. This complete continuous type, grain blending system shall be designed in such a way that variation in the blending ratio of the ingredients should be minimum / within the tolerance level.

Grain conveying in this section shall be done using conveyors and elevators whereas flour should be preferably conveyed pneumatically due to hygienic reasons.

Round tanks or rectangular/Square tanks with rounded corners shall be used for the storage of flour.

Material of construction of all the machines and spouting, handling grains (including hammer mills) in this section shall be MS, CI etc. whereas material contact part of all the machines, pneumatic lifts and spouting handling Flour shall be Stainless steel 202 (non magnetic only).

All sheets, plates, structural frames, etc. are of suitable BIS standard and should be of suitable thickness for a reasonable life and trouble free performance of the machines.

All the steel, bearings, V belts, chains, couplings, sprockets, lubricants, motors, geared motors, gear boxes, etc. should be of reputed make and as per suitable BIS standards.

All the machines should preferably be painted with the Epoxy Paint. Before painting the entire metal surface should be properly cleaned (de-rusting, de-greasing, de-oiling, etc.) and coated with suitable Primer and Surfacer.

These main machines to be used in this section are:-

Description	Size & Qty
Metering Conveyor/ Feeder for the controlled feeding of grains from the Bins into the mixing conveyor. MOC : MS	4 nos.
Mixing Conveyor for the homogeneously mixing of the grains. MOC : MS	Suitable
Bucket Elevators for vertical conveying of Grains. MOC : MS	Suitable
Buffer Storage Bin, Capacity 2 MT, with suitable nos. of outlets for the storage of Mixed grains. MOC : MS	1 no.
Metering Conveyor/ Feeder for the controlled feeding of grains from the Bins into the Hammer mills/ Pulveriser. MOC : MS	1 no.
Magnets for the separation of ferrous impurities. MOC : Suitable	Suitable
Hammer Mill/ Pulveriser, Capacity 1 MT for the grinding of the mixed grains. MOC : MS	1 nos.
Sifter for grading/separating oversize material from the flour. MOC : SS 202	Suitable
Pneumatic lifts for the conveying of flour, comprising of Pneumatic Feeder, Pneumatic Cyclone, Airlock, Lift pipe, bends and accessories. MOC : SS 202	Suitable
High Pressure fan (Pneumatic Fan) with Pulse jet Filter, airlock, ducting, etc MOC : MS	Suitable
Storage Bins of Capacity 2 MT for Flour. MOC : SS 202	1 no.

3.0 Flour Roasting and Cooling Section, Capacity 1 TPH

In this section Flour is roasted in the Roasters at the desired temperature to get the desired texture, color and aroma. It is then cooled down naturally to the desired temperature during pneumatic conveying and storage in the storage Bins.

Material contact part of Roasters and its oil jacket shall be Stainless steel 304. However Stainless steel 202 (non magnetic) sheets of suitable thickness shall be used as outer jacket (cover) after insulation.

Material contact part of cooling bin shall be Stainless steel 304 whereas material contact part of all the other machines, storage bins, pneumatic lifts and spouting handling Flour shall be Stainless steel 202 (non magnetic).

All sheets, plates, structural frames, etc. are of suitable BIS standard and should be of suitable thickness for a reasonable life and trouble free performance of the machines.

All the steel, bearings, V belts, chains, couplings, sprockets, lubricants, motors, geared motors, gear boxes, etc. should be of reputed make and as per suitable BIS standards.

All the machines should preferably be painted with the Epoxy Paint. Before painting all the metal surface should be properly cleaned (de-rusting, de-greasing, de-oiling, etc.) and coated with suitable Primer and Surfacer.

These main machines to be used in this section are:-

Description	Size & Qty
Vibro Bin Activator for the non interrupted discharge of flour from Storage Bin. MOC : SS 202	2 nos.
Metering Conveyor/ Feeder for the controlled discharge of flour from the Bins. MOC : SS 202	2 nos.
Magnets for the separation of ferrous impurities. MOC : Suitable	Suitable
Vertical Type, Conical Shaped Roaster (with suitable jacket for thermic fluid circulation and Insulation) for the uniform roasting of Flour, Minimum capacity 750 Liter. MOC : SS 304	2 nos.
Cooling bin of Capacity 1.5 MT for Flour with suitable arrangements MOC : SS 304	1 no.
Screw Conveyors for horizontal conveying of Flour. MOC : SS 202	Suitable
Pneumatic lifts for the conveying of flour, comprising of Pneumatic Feeder, Pneumatic Cyclone, Airlock, Lift pipe, bends and accessories. MOC : SS 202	Suitable
High Pressure fan (Pneumatic Fan) with Pulse jet Filter, airlock, ducting, etc MOC : MS	Suitable
Storage Bin of Capacity 2 MT for Flour. MOC : SS 202	1 no.

4.0 Additive Storage and Blending Section, Capacity 1 TPH

Additive storage area should be totally isolated from the Processing area. All the additives like Sugar, Soya flour, Vitamins, Minerals, Milk powder, etc. shall be stored separately in this area. Two different types of Vegetable oils shall be stored in separate oil tanks. These big oil tanks (main storage tanks) shall be placed away from the main Processing area.

Macro additives like sugar and soya flour shall preferably be cleaned by a sifter to remove oversize impurities like strings, twine, rags, ferrous impurities, etc. before storage into separate storage bins.

Micro additives like Vitamins, Minerals, Milk Powder, etc or its preblend shall be stored separately in 3 different storage tanks.

Two small oil tanks shall also be placed in the processing area for the addition of oil into the main product. Oil from the main storage tanks should be pumped into these small oil tanks through oil strainers to remove impurities. The upper level of these tanks should be such that it matches with the upper level of main oil tank to take care of overflow (a separate line for overflow would be installed by the oil tank supplier).

Roasted flour , Sugar, Soya Flour, Micro additives (Vitamins, minerals, Mineral powder, etc) or its preblend, oil , etc. kept in different storage bins shall then be automatically feed, weighed and blended as per the product recipe in the Ribbon blenders. The complete batching and blending system should run in continuous cyclic mode by simply selecting any of the preset recipes on the Process control screen. The product formed after blending of these ingredients shall then be stored in a Bin.

The whole auto batching and blending system shall be designed in such a way that variation in the blending ratio of the ingredients should be minimum / within the tolerance level.

Sugar conveying in this section shall be done using conveyors and elevators whereas flour should preferably be conveyed pneumatically due to hygienic reasons.

Material contact part of Ribbon Blender shall be Stainless steel 304

Material contact part of all other machines, storage Bins, pneumatic lifts and spouting handling Flour shall be Stainless steel 202 (non magnetic).

All sheets, plates, structural frames, etc. are of suitable BIS standard and should be of suitable thickness for a reasonable life and trouble free performance of the machines.

All the steel, bearings, V belts, chains, couplings, sprockets, lubricants, motors, geared motors, gear boxes, etc. should be of reputed make and as per suitable BIS standards.

All the machines should preferably be painted with the Epoxy Paint. Before painting all the metal surface should be properly cleaned (de-rusting, degreasing, de-oiling, etc.) and coated with suitable Primer and Surfacer.

These main machines to be used in this section are:-

Description	Size & Qty
Feed hopper with feed control screw & dust control system for Soya flour MOC : SS 202	1 no.
Vibro sifter for the cleaning of sugar and Soya flour to remove big size impurities, lumps, etc. MOC : SS 202	2 nos.
Vibro Bin Activator for the non interrupted discharge of Roasted flour, Sugar, Soya flour from Storage Bin. MOC : SS 202	3 nos.
Vibro Bin Activator for the non interrupted discharge of Vitamin, Minerals, Milk Powder or its Preblend from Storage tanks. MOC : SS 202	3 nos.
Metering Conveyor/ Feeder for the controlled discharge of flour and additives from the Bins and Blenders. MOC : SS 202	6 nos.
Oil control valves to control of oil from the tanks. MOC : Suitable	suitable
Magnets for the separation of ferrous impurities. MOC : Suitable	Suitable
Ribbon Blender, Capacity 100 Kg/batch with control slide gate/discharge feeder for making the pre-blend of micro additives. MOC : SS 202	1 no.
Ribbon Blender, Capacity 300 Kg/batch with control slide gate/ discharge feeder for the blending of all the additives in desired ratio. MOC : SS 202	2 nos.
Load cells based weighing system with accessories for batching and blending system. MOC : SS 304	3 sets
Pneumatic/ motorised Slide gates and Diverters. MOC : SS 202	suitable
Bucket Elevators for vertical conveying of Sugar and Finished Product MOC : SS 202	Suitable
Screw Conveyors/ Tube Conveyor for horizontal conveying of Additives/ Flour/ Finished Product. MOC : SS 202	Suitable
Pneumatic lifts for the conveying of flour, comprising of Pneumatic Feeder, Pneumatic Cyclone, Airlock, Lift pipe, bends and accessories. MOC : SS 202	Suitable
High Pressure fan (Pneumatic Fan) with Pulse jet Filter, airlock, ducting, etc MOC : MS	Suitable
Oil storage tanks of capacity 300 Litre for Soya oil and Vegetable oil with suitable pumps. MOC : MS	2 nos.
Storage tanks of Capacity 250 kg for Vitamin, Minerals, Milk powder or its Pre-blend. MOC : SS 202	3 nos.
Storage Bin of Capacity 500 KG for Soya Flour and 1 MT for Sugar. MOC : SS 202	2 nos.
Storage Bin of Capacity 3 MT for Finished Product. MOC : SS 202	1 no.

5.0 Packing Section, Capacity 1 TPH

Finished Product Packing area should ideally be away from the Processing area. Similarly Finished product storage area should preferably be totally isolated from the Processing area.

Product stored in the storage bins should finally be screened before packing into the pouches of desired weight. Automatic FFS machines with attached TTP printer shall be used for the packing of the product. These pouches shall then be packed manually in the HDPE bags.

Material contact part of all the machines, storage bins and spouting handling Finished Product shall be Stainless steel 202 (non magnetic).

All sheets, plates, structural frames, etc. are of suitable BIS standard and should be of suitable thickness for a reasonable life and trouble free performance of the machines.

All the steel, bearings, V belts, chains, couplings, sprockets, lubricants, motors, geared motors, gear boxes, etc. should be of reputed make and as per suitable BIS standards.

All the machines should preferably be painted with the Epoxy Paint. Before painting all the metal surface should be properly cleaned (de-rusting, degreasing, de-oiling, etc.) and coated with suitable Primer and Surfacer.

These main machines to be used in this section are:-

Description	Size & Qty
Vibro Bin Activator for the non interrupted discharge of Product from Storage Bin. MOC : SS 202	1 no.
Metering Conveyor/ Feeder for the controlled discharge of Product from the Bins. MOC : SS 202	1 no.
Magnets for the separation of ferrous impurities. MOC : Suitable	Suitable
Tube Conveyor for the conveying Finished Product. MOC : SS 202	Suitable

6.0 Steel structure (Platform) and Storage Bins

Complete machinery for this plant shall be installed on G+1 Floor i.e Ground Floor + 1 Mezzanine floor.

Machinery placement on the ground floor and mezzanine floor shall be planned in such manner so as to have sufficient working space all around the machines and to prevent cross contamination of material and weevils etc from one section to the other sections of the plant.

This steel structure/ platform for making this mezzanine floor should be of standalone type and should not connected/ attached to any nearby walls.

This steel structure/ platform should be of suitable size and strength so as to withstand the load and vibration of all the machines installed on it. Supporting legs (columns) and foundation of this steel platform should be made considering the load bearing strength of the soil.

This mezzanine floor should be at suitable height so as to have sufficient working height under it and facilitate the spouting work with sufficient slope angle.

Wherever required (like on elevators top, etc.) maintenance platform of suitable size and strength should be provided with suitable ladder, etc.

Similarly all the storage bins should be of suitable size and strength so as to withstand the total dead and live load of the material. All the storage bins should be covered / closed from the top and have the provision to go inside the bins for the cleaning purposes.

Supporting legs (columns) and foundation of these bins should be made considering the load bearing strength of the soil.

Staircase of suitable size, strength and quantity shall be provided to access the Mezzanine floor and top of the storage bins. For safety purposes, railing of suitable size and strength shall be provided all around the platform, top of bins, stairs, maintenance platform for elevators, monkey ladders, etc.

All I beams, Channels, Angles, plates, sheets, used for the manufacturing of steel structure and storage bins shall be of suitable BIS standard and of suitable thickness/ strength for a reasonable life of the structure and trouble free performance of the machines.

Modular (preformed) steel structure and storage Bins etc. shall preferably be supplied to the site for the quick installation work but if required it can be made at the site as well by the bidder at its own cost. Bidder has to make his own arrangements for any such fabrication and installation work.

Note :

- All the storage tanks (MS or SS) shall be made from atleast 3mm thick sheets.
- All the gravity pipe (preferably ERW pipes) used for the grain handling shall be atleast 3mm thick.
- All the gravity pipes used for the refraction handling shall be fabricated from atleast 1.5mm thick MS sheets.
- All the gravity pipes used for the flour handling shall be fabricated from atleast 1.5mm thick SS 202 sheets.
- All the Aspiration ducting shall be fabricated from atleast 22 swg thick GI sheets or 18 swg MS sheets.
- Mezzanine floor of the steel structure shall be made from atleast 5mm thick chequered plates.

7.0 Electrical Control and Automation

Complete plant shall be controlled from a centralised Control panel room. Provision for this panel room shall be made in the plant area itself for the ease of operation and maintenance. All the Motor control centre (MCC panels) and PLC panels shall be placed in this panel room.

All the panels shall be modular, non compartmentalized and have front access door. It should be made from suitable thick CRC sheets and then Powdered coated after suitable surface treatment.

All MCC shall have a main incomer, multifunction meter, insulated aluminum bus bar, switchgears of suitable rating & breaking capacity, illuminated push buttons, indicators, VFD etc.

All the motors (except vibro motors) shall be of IE 2 Efficiency, CE marked, as per suitable IS standard

All the selection of switchgears shall be as per "TYPE 2 Coordination Chart" (According to IEC 947-4-1)

Each DOL Starter/ VFD starter shall mainly consist of MPCB, Contactor, illuminated start/stop Push buttons, etc.

Each Star Delta shall mainly consist of MPCB, Contactor, Timer, digital ammeter, illuminated push buttons, etc.

All PLC panel shall have suitable isolation for safety, all outputs shall be through interposing relays, shall be based on 24v DC in the field.

PLC I/Os shall be designed with atleast 15% spare.

Plant operation (in Auto mode and semi auto mode) shall be controlled through the mimic/ push buttons made on the display screen (24" LCD monitor), whereas in manual mode it shall be through the push buttons provided on the Panel door.

7.1 Design and Control Philosophy

All the bidders are free to design/ architect the process program and hardware as per the process flow offered by them. However they must ensure that the design offered by them should minimally follow the brief requirement described as under.

Panels should have the provision to run the plant in the following 3 modes:-

Mode 1 (Automatic mode by PLC)	To switch ON/OFF each line/ section (group operation) of the plant in automatic mode by clicking/ pressing Touch push button made on Display screen.
Mode 2 (Semi -Auto mode by PLC)	To switch ON/OFF each individual motor by pressing/clicking Touch push button made on Display screen.
Mode 3 (Complete Manual mode)	To switch ON/OFF each individual motor by pressing push button on Panel cabinet.

Note : Above mentioned Mode 2 and Mode 3 shall be provided for operation of plant in the case of Emergencies like PLC program gets corrupted or PLC itself gets faulty beyond immediate repair.

- All the motors installed in the plant shall be connected in some small sections/ groups so that the desired section can be switched ON/OFF manually as per the requirement or automatically by the level sensors installed on the storage bins in the Auto mode.

- Motors connected in the group shall have sequential interlocking and have provision to raise an alarm in field, panel room and on Display screen.
- Grain Blending Operation (Volumetric based): In manual mode the grain blending ratio shall be controlled by manually selecting and varying the speed of discharge feeder of the storage bins whereas in auto mode the system shall automatically start/stop/run the desired feeder at desired speed to get the desired capacity and desired blend ratio of grains as per the selected Product Recipe. Features for the storage of such Product Recipes shall be provided with password protection.
- Additive Blending Operation (Weigh based): In manual mode the additive blending ratio shall be controlled by weighing each additive in the weighing equipment, one by one through the discharge feeder whereas in auto mode the system shall automatically start/stop the desired feeder, one by one, till the desired weight is reached in the weighing equipment, as per the selected Product recipe. Features for the storage of such Product Recipe shall be provided with the password protection.
- The automation system should be such that it can enable SCADA at later date at the discretion of the Department.
- All other safety features alarms/hooters, emergency stop, maintenance start/stop station shall be placed at suitable place in the Plant area.
- All the power cables and data cables shall be laid separately in separate cable trays

BRIEF DESCRIPTION ABOUT THE KHICHRI PLANT

All the bidders are free to design the process flow sheet and plant layout so as to meet out the Product specifications and Hygiene requirement of this Tender. The production process and plant layout should meet out the relevant Food safety standards of FSSAI, HACCP, GMP, ISO, etc.

Bidders are also free to select the best suitable machines for the production process however they must ensure that the process offered by them should minimally follow the brief process described as under.

The Plant and machinery can broadly be divided in 6 sections:

- 1- Grain Cleaning and Storage section.
- 2- Grain Blending Section
- 3- Additive Blending Section
- 4- Packing Section
- 5- Steel Structure (Platform) & Storage Bins
- 6- Electrical Control and Automation

1.0 Grain Cleaning and Storage Section :

Raw material storage area should be totally isolated from the Processing area. All the Grains (like Rice, Moong) shall be stored separately in this Raw material godown. These grains shall be then cleaned in the Cleaning section of this plant so as to remove all types of foreign impurities before further processing.

This line shall be commonly used for the cleaning of Rice and Moong separately.

Grains should get sufficiently cleaned so that it can be used for producing a Product fulfilling the quality parameters of this Tender.

After cleaning different types of grains shall be stored in separate Storage Bins.

Material of construction of all the machines and spouting (interconnecting pipes and hoppers, etc) used in the cleaning section shall be MS, CI, etc. All sheets, plates, structural frames, etc. shall be of suitable BIS standard and should be of suitable thickness for a reasonable life and trouble free performance of the machines.

All the steel, bearings, V belts, chains, couplings, sprockets, lubricants, motors, geared motors, gear boxes, etc. should be of reputed make and as per suitable BIS standards.

All the machines should preferably be painted with the Epoxy Paint. Before painting all the metal surface should be properly cleaned (de-rusting, de-greasing, de-oiling, etc.) and coated with suitable Primer and Surfacer.

1.1 Cleaning line for Rice & Moong, Capacity 1 TPH.

The main machines to be used in this cleaning line are :-

Description	Size & Qty
Reel machine / Drum Sieve (2 screens type) for the separation of big and small size impurities. MOC : MS	1 no.
Grain Cleaner (2 or 3 deck) with Aspiration channel for the separation of big size, small size and lighter impurities. MOC : MS	1 no.
Central Aspiration system comprising of suitable size Fan, Cyclone, Airlock, etc. for the removal of light impurities and dust from all the machines and to keep the process area dust free. MOC : MS, GI ducting	1 set
Destoner (suction type) with suitable size Fan, Cyclone, Airlock, etc for the separation of stones and other heavy impurities MOC : MS	1 set
Magnets for the separation of ferrous impurities MOC : Suitable	Suitable
Bucket Elevators for vertical conveying of Grains MOC : MS	Suitable
Screw Conveyors for Horizontal conveying of Grains MOC : MS	Suitable
Storage Bins of Capacity 8 MT for Rice MOC : MS	1 no.
Storage Bins of Capacity 2 MT for Moong MOC : MS	1 no.

2.0 Grain Blending Section, Capacity 1 TPH :

All the grains stored in different storage bins shall be discharged volumetrically, automatically, in the desired ratio, as per the product recipe and blended homogeneously before storage into the Bin.

The rate of flow of different ingredients shall be automatically controlled by simply selecting any of the preset recipe on the Process control screen. This complete continuous type, grain blending system shall be designed in such a way that variation in the blending ratio of the ingredients should be minimum / within the tolerance level.

Grain conveying in this section shall be done using conveyors and elevators

Material of construction of all the machines, storage bins and spouting, etc. handling grains in this section shall be MS, CI etc.

All sheets, plates, structural frames, etc. are of suitable BIS standard and should be of suitable thickness for a reasonable life and trouble free performance of the machines.

All the steel, bearings, V belts, chains, couplings, sprockets, lubricants, motors, geared motors, gear boxes, etc. should be of reputed make and as per suitable BIS standards.

All the machines should preferably be painted with the Epoxy Paint. Before painting all the metal surface should be properly cleaned (de-rusting, de-greasing, de-oiling, etc.) and coated with suitable Primer and Surfacer.

This main machines to be used in this section are :-

Description	Size & Qty
Metering Conveyor/ Feeder for the controlled feeding of grains from the Bins into the mixing conveyor MOC : MS	2 nos.
Mixing Conveyor for the homogeneously mixing of the grains MOC : MS	Suitable
Bucket Elevators for vertical conveying of Grains MOC : MS	Suitable
Buffer Storage Bin, Capacity 2 MT, with suitable nos. of outlets for the storage of Mixed grains MOC : MS	1 no.
Magnets for the separation of ferrous impurities MOC : Suitable	Suitable

3.0 Additive Storage and Blending Section, Capacity 1 TPH

Additive storage area should be totally isolated from the Processing area. All the additives like Soya grit, Vitamins, Minerals, Spices, etc. shall be stored separately in this area. Two different types of Vegetable oils shall be stored in separate oil tanks. These big oil tanks (main storage tanks) shall be placed away from the main Processing area.

Soya grit shall preferably be cleaned by a sifter to remove oversize impurities like strings, twine, rags, ferrous impurities, etc. before storage into a storage bins.

Preblend of Micro additives like Vitamins, Minerals, Spices, etc shall be stored in 1 storage bin

Two small oil tanks shall also be placed in the processing area for the addition of oil into the main product. Oil from the main storage tanks should be pumped into these small oil tanks through oil strainers to remove impurities. The upper level of these tanks should be such that it matches with the upper level of main oil tank to take care of overflow (a separate line for overflow would be installed by the oil tank supplier).

Premixed Grains, Soya grit, Preblend of Vitamins, minerals, spices), oil, etc. kept in different storage bins shall then be automatically feed, weighed and blended as per the product recipe in the Ribbon blenders. The complete batching and blending system should run in continuous cyclic mode by simply selecting any of the preset recipe on the Process control screen. The product formed after blending of these ingredients shall then be stored in a Bin.

The whole auto batching and blending system shall be designed in such a way that variation in the blending ratio of the ingredients should be minimum / within the tolerance level.

Material contact part of Ribbon Blenders, and Khichdi Storage Tank shall be Stainless steel 202

Material contact part of all the other machines, storage tanks and spouting, etc. shall be Mild steel, CI, etc.

All sheets, plates, structural frames, etc. are of suitable BIS standard and should be of suitable thickness for a reasonable life and trouble free performance of the machines.

All the steel, bearings, V belts, chains, couplings, sprockets, lubricants, motors, geared motors, gear boxes, etc. should be of reputed make and as per suitable BIS standards.

All the machines should preferably be painted with the Epoxy Paint. Before painting all the metal surface should be properly cleaned (de-rusting, degreasing, de-oiling, etc.) and coated with suitable Primer and Surfacer.

This main machines to be used in this section are :-

Description	Size & Qty
Feed hopper with feed control screw & dust control system for Soya grit MOC : MS	1 no.
Vibro sifter for the cleaning of Soya grit to remove big size impurities, lumps, etc. MOC : MS	1 no.
Vibro Bin Activator for the non interrupted discharge of Soya Grit from Storage Bin MOC : MS	1 no.
Vibro Bin Activator for the non interrupted discharge of Preblend of Vitamin, Minerals, Spices from Storage tanks MOC: MS	1 no.
Metering Conveyor/ Feeder for the controlled discharge of flour and additives from the Bins and Blenders MOC : MS	3 nos.
Oil control valves to control of oil from the tanks MOC : Suitable	suitable
Magnets for the separation of ferrous impurities MOC : Suitable	Suitable
Ribbon Blender, Capacity 100 Kg/batch with control slide gate/discharge feeder for making the pre-blend of micro additives MOC : SS 202	1 no.
Ribbon Blender, Capacity 300Kg/batch with control slide gate/ discharge feeder for the blending of all the additives in desired ratio. MOC : SS 202	1 no.
Load cells based weighing system with accessories for batching and blending system MOC : SS 304	2 sets
Pneumatic/ motorised Slide gates and Diverters MOC : MS	suitable
Screw Conveyors/ Tube Conveyor for Vertical & horizontal conveying	Suitable

of Soya Grit/ Additives Preblend / Finished Product, etc. MOC : MS	
Oil storage tanks of capacity 300 Litre for Soya oil and Vegetable oil with suitable pumps MOC : MS	2 nos.
Storage tank of Capacity 200 kg for Pre-blend of Vitamin, Minerals, Spices MOC : MS	1 nos.
Storage Bin of Capacity 1 MT for Soya Grit MOC : MS	1 no.
Storage Bin of Capacity 2 MT for Finished Product (Khichdi) MOC : SS 202	1 no.

4.0 Packing Section, Capacity 1 TPH

Finished Product Packing area should ideally be away from the Processing area. Similarly Finished product storage area should preferably be totally isolated from the processing area.

Product stored in the storage bins should finally be screened before packing into the pouches of desired weight. Automatic FFS machines with attached TTP printer shall be used for the packing of the product. These pouches shall then be packed manually in the HDPE bags.

Material contact part of all the machines and spouting handling Finished Product (Khichdi) shall be Stainless steel 202 (non magnetic).

All sheets, plates, structural frames, etc. are of suitable BIS standard and should be of suitable thickness for a reasonable life and trouble free performance of the machines.

All the steel, bearings, V belts, chains, couplings, sprockets, lubricants, motors, geared motors, gear boxes, etc. should be of reputed make and as per suitable BIS standards.

All the machines should preferably be painted with the Epoxy Paint. Before painting all the metal surface should be properly cleaned (de-rusting, degreasing, de-oiling, etc.) and coated with suitable Primer and Surfacer.

This main machines to be used in this section are :-

Description	Size & Qty
Vibro Bin Activator/ Discharger for the non interrupted discharge of Product from Storage Bin MOC : SS 202	1 no.
Metering Conveyor/ Feeder for the controlled discharge of Product from the Bins MOC : SS 202	1 no.
Magnets for the separation of ferrous impurities MOC : Suitable	Suitable
Tube Conveyor for the conveying Finished Product MOC : SS 202	Suitable

STEEL STRUCTURE (PLATFORM) AND STORAGE BINS

Complete machinery for this plant shall be installed on G+1 Floor i.e Ground Floor + 1 Mezzanine floor.

Machinery placement on the ground floor and mezzanine floor shall be planned in such manner so as to have sufficient working space all around the machines and to prevent cross contamination of material and weevils etc from one section to the other sections of the plant.

This steel structure/ platform for making this mezzanine floor should be of standalone type and should not connected/ attached to any nearby walls.

This steel structure/ platform should be of suitable size and strength so as to withstand the load and vibration of all the machines installed on it. Supporting legs (columns) and foundation of this steel platform should be made considering the load bearing strength of the soil.

This mezzanine floor should be at suitable height so as to have sufficient working height under it and facilitate the spouting work with sufficient slope angle.

Wherever required (like on elevators top, etc.) maintenance platform of suitable size and strength should be provided with suitable ladder, etc.

Similarly all the storage bins should be of suitable size and strength so as to withstand the total dead and live load of the material. All the storage bins should be covered /closed from the top and have the provision to go inside the bins for the cleaning purposes.

Supporting legs (columns) and foundation of these bins should be made considering the load bearing strength of the soil.

Staircase of suitable size, strength and quantity shall be provided to access the Mezzanine floor and top of the storage bins. For safety purposes, railing of suitable size and strength shall be provided all around the platform, top of bins, stairs, maintenance platform for elevators, monkey ladders, etc.

All I beams, Channels, Angles, plates, sheets, used for the manufacturing of steel structure and storage bins shall be of suitable BIS standard and of suitable thickness/ strength for a reasonable life of the structure and trouble free performance of the machines.

Modular (prefomed) steel structure and storage Bins etc. shall preferably be supplied to the site for the quick installation work but if required it can be made at the site as well by the bidder at its own cost. Bidder has to make his own arrangements for any such fabrication and installation work.

Note :

- All the storage tanks (MS or SS) shall be made from atleast 3mm thick sheets
- All the gravity pipe (preferably ERW pipes) used for the grain handling shall be atleast 3mm thick.

- All the gravity pipes used for the refraction handling shall be fabricated from atleast 1.5mm thick MS sheets.
- All the gravity pipes used for the flour handling shall be fabricated from atleast 1.5mm thick SS 202 sheets
- All the Aspiration ducting shall be fabricated from atleast 22 swg thick GI sheets or 18 swg MS sheets
- Mezzanine floor of the steel structure shall be made from atleast 5mm thick chequered plates.

ELECTRICAL CONTROL AND AUTOMATION

- Complete plant shall be controlled from a centralised Control panel room. Provision for this panel room shall be made in the plant area itself for the ease of operation and maintenance. All the Motor control centre (MCC panels) and PLC panels shall be placed in this panel room.
- All the panels shall be modular, non compartmentalized and have front access door. It should be made from suitable thick CRC sheets and then Powdered coated after suitable surface treatment.
- All MCC shall have a main incomer, multifunction meter, insulated aluminum bus bar, switchgears of suitable rating & breaking capacity, illuminated push buttons, indicators, VFD etc.
- All the motors (except vibro motors) shall be of IE 2 Efficiency, CE marked as per suitable IS standard.
- All the selection of switchgears shall be as per "TYPE 2 Coordination Chart" (According to IEC 947-4-1).
- Each DOL Starter/ VFD starter shall mainly consist of MPCB, Contactor, illuminated start/stop Push buttons, etc.
- Each Star Delta shall mainly consist of MPCB, Contactor, Timer, digital ammeter, illuminated push buttons, etc.
- All PLC panel shall have suitable isolation for safety, all outputs shall be through interposing relays, shall be based on 24v DC in the field.
- PLC I/Os shall be designed with atleast 15% spare.
- Plant operation (in Auto mode and semi auto mode) shall be controlled through the mimic/ push buttons made on the display screen (24" LCD monitor), whereas in manual mode it shall be through the push buttons provided on the Panel door.

DESIGN AND CONTROL PHILOSOPHY

All the bidders are free to design/ architect the process program and hardware as per the process flow offered by them. However they must ensure that the design offered by them should minimally follow the brief requirement described as under.

Panels should have the provision to run the plant in the following 3 modes:-

Mode 1 (Automatic mode by PLC)	To switch ON/OFF each line/ section (group operation) of the plant in automatic mode by clicking/ pressing Touch push button made on Display screen.
Mode 2 (Semi -Auto mode by PLC)	To switch ON/OFF each individual motor by pressing/clicking Touch push button made on Display screen.
Mode 3 (Complete Manual mode)	To switch ON/OFF each individual motor by pressing push button on Panel cabinet.

Note : Mode 2 and Mode 3 shall be provided for operation of plant in the case of Emergency when something goes wrong on PLC program or PLC itself gets faulty and the local maintenance team is unable to sort out the matter.

- All the motors installed in the plant shall be connected in some small sections/ groups so that the desired section can be switched ON/OFF manually as per the requirement or automatically by the level sensors installed on the storage bins in the Auto mode.
- Motors connected in the group shall have sequential interlocking and have provision to raise an alarm in field , panel room and on Display screen.
- Grain Blending Operation (Volumetric based): In manual mode the grain blending ratio shall be controlled by manually selecting and varying the speed of discharge feeder of the storage bins whereas in auto mode the system shall automatically start/stop/run the desired feeder at desired speed to get the desired capacity and desired blend ratio of grains as per the selected Product Recipe. Features for the storage of such Product Recipes shall be provided with password protection.
- Additive Blending Operation (Weigh based): In manual mode the additive blending ratio shall be controlled by weighing each additive in the weighing equipment, one by one through the discharge feeder whereas in auto mode the system shall automatically start/stop the desired feeder, one by one, till the desired weight is reached in the weighing equipment, as per the selected Product recipe. Features for the storage of such Product Recipe shall be provided with the password protection.
- The automation system should be such that it can enable SCADA at later date at the discretion of the Department.
- All other safety features alarms/hooters, emergency stop; maintenance start/stop station shall be placed at suitable place in the Plant area.
- All the power cables and data cables shall be laid separately in separate cable trays

OTHER TECHNICAL INFORMATION**A. THE DETAILS OF PROPOSED PRODUCTION :-**

PLANT CAPACITY	POWDER (MT)	KHICHADI (MT)	WORKING DAYS	WORKING HOURS PER DAY	NO OF RECIEPE	NO OF PLANT
600 MT	400	200	25	20	5	1

B. DETAILS OF PLACES WHERE PLANTS NEEDS TO BE ESTABLISHED AND PLANT CAPACITY

SR.NO	PLACE	INSTALLED CAPACITY (M.T. PER MONTH)	NO OF RECIEPE
01	HOSHANGABAD	600	5

C. DETAILS OF PLANT AREA

S.N.	PARTICULARS	LENGTH (METER)	WIDTH (METER)	HEIGHT (FEET)
01	RAW MATERIAL GODOWN (CAPACITY 1250 M.T.)	28	18	15
02	PLANT AREA** (INCLUDING AREA FOR COMPRESSURE UNIT AND 2 OIL TANK OF 25 KL EACH)	18.9	24.8	30
03	FINISHED PRODCT GODOWN (CAPACITY 900 M.T.)	28	9	15

D. THE DETAILS OF RECIPES (PREMIX)

SR NO	PARTICULARS	CHILDREN 6 MONTHS TO 3 YEARS			PREGNENT AND LACTATING MOTHER AND KISHORI BALIKAE		
		HALWA (Powder)	BAAL AAHAR (Powder)	KHICHADI	GEHU SOYA BARFI (Powder)	AATA BESAN LADDU (Powder)	KHICHADI
1	WHEAT	42 %	48 %		42%	34 %	
2	BENGAL GRAM	8 %			8 %	16 %	
3	RICE			47 %			47 %
4	MOONG DAL			25 %			25 %
5	SOYA FLOUR	14 %	14 %		14 %	14 %	
6	SOYA GRIT			14 %			14 %
7	SUGAR	16 %	16 %		18 %	18 %	
8	REFINED OIL (VEGITABLE)	5 %	5 %	6 %	5 %	5 %	6 %
9	REFINED OIL (SOYABEAN)	5 %	5 %	6 %	5 %	5 %	6 %
10	MASALA			2 %			2 %
11	MILK POWDER	10%	12 %		8 %	8 %	
	TOTAL	100 %	100 %	100 %	100 %	100 %	100 %

- Vitamin and Minerals pre mix are to be added extra in above quantity
 - The above is present recipe; the same may be changed with same/different raw material in different percentage mix. The plant should be designed in such a way to withstand with such changes with PLC automization without any mechanical changes.
- E. The Grain size in Powder would be 600 micron IS sieve 100 % passing in Khichadi would be 1000 micron IS sieve 100 % passing;
- F. 1 packing machine for powder packing and 1 packing machine for Khichadi packing will be installed for packing of the material. Each packing machine will have the capacity to pack 40 to 60 pouches of the material in a minute of 600/625/750 and 900 gram of same width of the pouch.
- G. The Bidder shall submit plant Layout. The layout shall be such that all raw materials that needs to be cleaned is stored in a area defined as raw material godown and all the ready to use materials separately out side plant processing within shortest possible distance to feed of desired tanks. The committee may make minor changes, if any, needs to be incorporated, without any change in Financial Bid.
- H. ** The total area of the plant (40 X 40 meter) will have six pillars in the centre at a distance of approx. 6.67 meter.

ELIGIBILITY CRITERIA

1. Bidder can bid for all EIGHT plants as per eligibility criteria, turnover and experience in establishing number of plants.
2. Bidder will be awarded maximum of 3 plants of 2500 M.T. capacity + Plant at Hoshangabad + Plant at Badi (Raisen) on the basis of Turnover and Experience of number of Plants installed as mentioned here in after.
3. The bids will be opened in order of tender number given on page 2 and work will be awarded to L-1 (lowest quote) accordingly subject to clause 3 of Annexure X.
4. The Bidder should be a Manufacturer of 01. Cleaning equipments, 02. Conveying equipments, 03.Silos, 04. Grinder (Hammer), 05. Blending equipments.
5. The Bidder should have **minimum Annual Turnover of Rs. 100 lac in each financial year and average turnover of as mentioned hereunder (in column 1 of serial 9) for last 3 financial years (FY 14-15, FY 15-16, FY 16-17).**
6. Bidder needs to enclose a certificate of valid class Electrical contractor with technical bid along with a statement that he proposes to take his services (without any obligation to engage the same).
7. For Automation (Total process should be PLC controlled and product formulation should be load cell basis) bidder will be free to engage capable agency at his own with all the liabilities of accuracy.
8. Bidder should have experience of installing such number of grain processing plants or similar to the kinds which are to be setup under this tender as mentioned herein below. Installation means setting up the plant installation and successful trial run of the same.
9. **Details of Turnover and experience of establishing plant in last 5 years should be as under:-**

Average Turnover of last three financial years (2014-15 to 2016-17) (as certified by the Chartered Accountants) (Rs. in lac)*	ELIGIBILITY FOR NO OF PLANT			EXPERIENCE IN NUMBER OF PLANT IN LAST 5 YEARS (2012-13 TO 2016-17)
	2500 MT PLANT	HOSHANGABAD	BADI	
1	2	3	4	5
500	1	--	--	1
750	2	--	--	2
1000	3	1	1	2

- I. Minimum turnover should be Rs. 500 lac to bid for any plant of 2500 MT capacity or at Hoshangabad or at Badi.
- J. Bidder having turnover of Rs 500 lac or above may also opt only for Hoshangabad and / or Badi Plant if not opting for 2500 MT plant.

MANDATORY DOCUMENTS

Envelope A (Technical Documents)

All the Mandatory Documents listed below are to be uploaded on or before 21.05.2018 upto 3:00 p.m. (in JPG or PDF format only, in minimum resolution of 100 DPI.) (Self Certified with Seal and signature). Documents uploaded in any other format will not be considered. In accordance with the procedure, the sealed cover containing hard copies of the documents should be dropped in the tender box separately kept in RTE section on or before 21.05.2018 up to 03:00 PM

1. The Bidder should be a Manufacturer of required 01. Cleaning equipments 02. Conveying equipments 03.Silos 04. Grinder (Hammer) 05. Blending equipments. Please attach requisite proof of the same.
2. Copy of License of Establishment of Fabrication Industry issued by competent department of the Government.
3. EMD for Rs. 3,50,000 (Rs. Three Lac Fifty Thousand only) by way of Demand Draft drawn in favour of "MP STATE AGRO INDUSTRIES DEVELOPMENT CORPORATION Ltd" payable at Bhopal is to be enclosed with the tender document.
4. Registered power of attorney (Proof of authorization) to be submitted with bid documents.
5. Certificate of Annual Turnover for last three years (FY 2014-15 TO 2016-17) issued by Chartered Accountant showing turnover as required in Annexure VII. Competency certificate issued by Chartered Accountant/ Chartered Engineer of Manufacturing Capacity to supply all required items as per specifications, arrangement of automation with a competitive and experienced firm and electrification with required class of contractor for 3/2/1 (as the case may be) plant as per specification of 2500 M.T (SNF). plus plant of 600 M.T (SNF) plus plant of 700 M.T. (Khichadi) plant within 90 days from the date of order and capacity to erect the same within a period of 60 days from the date of supply OR within 150 days from the date of order which ever is earlier (please strike off non applicable bold number).
6. Plant Layout showing the tentative location of the two plants i.e. Powder Plant and Khichdi Plant and also its various sections/ area, namely Raw material storage section, Cleaning section, Grinding + Roasting +Blending section, Additive storage section, Packing section, Finished Product storage section, Control Panel room, Packing material Storage section, Utility section (Oil storage Tanks location, Compressor, etc), Machine spares Store, etc. It must also show a tentative position of approach gates from the road, change room, emergency exit, etc required by the Food safety standards and Building safety bylaws in the area as details herein above on page 25 at serial number 03.
7. Plant Process Flow sheet showing the various machines used in the manufacturing process.
8. Machinery Layout showing the tentative position of the various machines used in the production process.

9. Machinery Specification sheet providing all important information about the machine for comparison. **One such sample specification sheet (Annexure XV) is attached with this Tender.**
10. List of Machinery with Electrical Power requirement.
11. Summarized Salient features of the Plant offered by the Bidder.
12. Tentative list of Accessories, Ancillaries equipment and Services in the Bidder's scope of supply.
13. Tentative list of necessary Spares (mechanical + electrical spares with estimated value) being supplied with the plant that may be required during the warranty period of 2 years.
14. Utility requirement for the Plant like Thermopac Capacity with Thermic fluid flow/pressure requirement.
15. Compressed Air flow and pressure requirement for the machinery/ equipment used in the plant (other than the Packing machines).
16. Soya/Vegetable oil flow and pressure requirement.
17. Water flow and pressure requirement.
18. Any other requirement by the Bidder necessary the successful operation of the Plant.
19. List of buyers to whom you have supplied similar plants or items mentioned in 1 above in last five years (Please provide details of Name of the Company, Address, Name of Contact person, details of item supplied and value, if required the Corporation may contact them for getting feed back about the working of the Bidder).
20. Certificate of valid class Electrical contractor.
 - 20.1 Statement that the Bidder proposed to take his services (without any obligation to engage the same).
21. Name of the Company from whom Arrangements for PLC controlled and product formulation on load cell basis is selected.
 - 21.1 Statement that the Bidder proposes to take his services (without any obligation to engage the same).
22. Copy of GSTIN No. and Registration Certificate issued by Government of India.
23. Copy of PAN Card
24. Copy of latest GST Returns filed by the Firm.
25. Complete tender document duly filled in, signed and stamped page 1 to 29 and 31 to 42. (Financial Bid page no 30 to be uploaded separately).

FINANCIAL BID

(FOR FULLY AUTOMATIC PLANT FOR MANUFACTURING OF POWDER
RECIPE AND KHICHADI MIX INCLUDING ELECTRIFICATION AND
AUTOMATION)

The price is to be quoted in the proforma given below through online only
(i.e., the price bid is to be uploaded through e-portal).

01. NAME OF THE BIDDER

SN	PARTICULARS	BASIC PRICE	GST %	AMOUNT OF GST	TOTAL AMOUNT
POWDER RECIPE					
1.1	GRAIN CLEANING AND STORAGE SECTION				
1.2	GRAIN BLENDING AND GRINDING SECTION				
1.3	FLOUR ROASTING AND COOLING SECTION				
1.4	ADDITIVE STORAGE AND BLENDING				
1.5	PACKING SECTION				
	TOTAL (A)				
KHICHADI RECIPE					
2.1	GRAIN CLEANING AND STORAGE SECTION				
2.2	GRAIN BLENDING SECTION				
2.3	ADDITIVE STORAGE AND BLENDING				
2.4	PACKING SECTION				
	TOTAL (B)				
3.1	FREIGHT (C)				
4.1	ELECTRIFICATION INCLUDING CONTROL PANNEL				
4.2	PLC AUTOMATION CONTROLLED ON LOAD CELL BASIS.				
4.3	IRON AND STEEL STRUCTURE				
	TOTAL (D)				
	TOTAL PRICE OFFERED (A+B+C+D)				

TOTAL RATE OFFERED WILL BE CONSIDERED FOR RATE COMPARISON PURPOSE.

SIGNATURE OF THE BIDDER

- The rates will be valid during the currency of the agreement which may be extended by Managing Director for 6 months.

INSTRUCTION FOR BIDDERS

- **ALL THE ITEMS ARE REQUIRED TO BE SUPPLIED AT THE DESTINATION WITHIN THE PERIOD OF 90 DAYS FROM THE DATE OF ORDER.**
- **FOR INSTALLATION, AUTOMATION, ELECTRIFICATION AND TRIAL RUN MAXIMUM 60 DAYS WILL BE ALLOWED FROM DATE OF SUPPLY OR 150 DAYS FROM THE DATE OF ORDER WHICH EVER IS MORE.**
- **WHERE THE BIDDER IS L1 AT MORE THAN ONE LOCATION, HE WILL BE CONSIDERED FOR AWARD IN ORDER OF THE TENDER NUMBER SUBJECT TO TERMS AND CONDITIONS OF THIS TENDER DOCUMENT.**
- **THE BID MUST ONLY BE SIGNED BY A PERSON DULY AUTHORIZED TO BIND THE BIDDER TO THE CONTRACT (ALL PAGES OF THE BID DOCUMENTS ARE TO BE SIGNED AND SUBMITTED). PROOF OF AUTHORIZATION SHALL BE FURNISHED (IN ORIGINAL) AS REGISTERED POWER OF ATTORNEY**

The Tender is invited under e-tendering system from the manufacturers only.

- A. Bidders are required to read carefully the terms and conditions of the document and submit documents / relevant information mentioned in TENDER document which is available on website only after affixing their digital signatures as a token of acceptance.
- B. Any amendment / amendments in the document including extension of date etc., such amendment / amendments will be uploaded on the Corporation's website www.mpagro.org. & on www.mpeproc.gov.in. No further notification will be published in the news paper. Therefore, interested bidders are advised to visit Corporation's website regularly for any update. It is also to be noted that any such amendments will be part of the Bid
- C. The Bidders will have to get registration with www.mpeproc.gov.in for e-tendering, without registration Bid cannot be uploaded on portal. To participate in Online TENDER interested Bidder will require Registration at Portal and valid class 3 digital signature certificates. Any charge/fee required for registration by www.mpeproc.gov.in is to be paid by Bidder.
- D. The TENDER document is available on website www.mpagro.org of the corporation & on www.mpeproc.gov.in .
- E. TENDER Document can be downloaded by paying on-line payment Rs 15000/- (Rs. Fifteen Thousand Only) on www.mpeproc.gov.in as the price of document.

1. TENDER SUBMISSION:

- a. The applicant should pay Rs. 15,000/- through online portal www.mpeproc.gov.in. On payment of application fee, the tender document can be downloaded from website www.mpstateagro.org. But the application fee is to be paid online only through www.mpeproc.gov.in
- b. All the documents which are uploaded are to be submitted in the form of hard copy duly self-attested, stamped in the Tender Box kept in the office of MPSAIDC Ltd, Panchanan, 3rd Floor, Malviya Nagar, Bhopal before 3 PM on 21.05.2018. The sealed envelope should be super scribed with

tender for **“FULLY AUTOMATIC PLANT FOR PRODUCTION OF 600 MT S.N.F. EVERY MONTH AT HOSHANGABAD”**

- c. Each applicant is eligible to submit only one Bid for a particular plant. No Bid shall be considered valid if a manufacturer submits more than one Bid for a particular plant.
- d. The Bid will be valid for a period of Three Month (90 days) from the opening of Financial Bid.

2. TERMS OF PRICE QUOTE:

- a. The RATE is to be quoted in the prescribed proforma through online (i.e., the price bid is to be uploaded through e-portal).
- b. The rate quoted is applicable for **“FULLY AUTOMATIC PLANT FOR PRODUCTION OF 600 MT S.N.F. EVERY MONTH AT HOSHANGABAD”**.
- c. The rate should be FOR destination, inclusive of all taxes.
- d. The rate should be inclusive of Supervision, installation, Insurance, Packing and forwarding.
- e. **It is clarified that no other charges will be paid except the rate given in annexure IX (Financial Bid).**

3. NEGOTIATION:

It is clarified that normally, no rate negotiation will be done; therefore Bidder should quote their lowest prices only. The Managing Director of the Corporation reserves the right to give counter offer as decided by the Committee to the eligible lowest Bidder or ask all eligible Bidders to resubmit their offers of a plant in closed envelop at such place, date and time as may be determined in this regard (This process shall be called Snap Bidding).

4. EARNEST MONEY DEPOSIT (EMD):

Rs. THREE LAC FIFTY THOUSAND ONLY

- a. On Earnest Money Deposit, no interest will be paid.
- b. The Earnest Money Deposit Demand Draft should be in favor of "THE M.P. STATE AGRO INDUSTRIES DEVELOPMENT CORPORATION LTD" payable at Bhopal. In the absence of EMD, tender will not be accepted.
- c. EMD will be returned only after work is allotted, agreement signed and necessary Bank Guarantee is submitted as required as per clause 13.
- d. Earnest Money Deposit of unsuccessful Bidder will be refunded as early as possible.

5. OPENING OF TENDER:

- a. The Sealed envelop super scribed with **“FULLY AUTOMATIC PLANT FOR PRODUCTION OF 600 MT S.N.F. EVERY MONTH AT HOSHANGABAD”** (physical copy of the tender) will be received in the office of MPSAIDC Panchanan, 3rd Floor, Malviya Nagar, Bhopal up to 03:00 PM on 21.05.2018.

- b. The uploaded technical bids of tenders will be opened at 04:00 PM on 21.05.2018 in the presence of Bidders or their authorized representatives.
- c. In case, the technical bids are not opened on the schedule date & time, due to some reason, the next date and time of opening of technical bid will be displayed on the notice board of the Corporation or it will be informed to Bidders or their representatives.
- d. The date of opening of Financial Bid of only qualified Bidders will be displayed on the notice board of the Corporation, uploaded on the Corporations WEBSITE and will be informed by email as informed by the bidder as per Annexure XI.

6. PROCESS OF OPENING OF THE TENDERS:

- a. The technical bids received shall be opened on the due date and time as notified. All technical papers submitted therein shall be examined by the Competent Authority. During such scrutiny if any additional information is required, the same shall be asked for.
- b. The Competent Authority shall, while doing scrutiny, refer to both the online documents received and also physical (hard copies) submitted by the bidder.
- c. Such bidders who qualify the technical criteria laid down in this tender shall be notified about the date and time of opening of the financial bids.
- d. The financial bids shall be opened in the presence of bidders or their authorised representative if they chose to represent.
- e. The chart of the price bids received shall be prepared plant wise.
- f. The competent authority shall first examine the rates received and where it considers that revised bids needs to be called for. It shall take reference to clause 3 of Annexure- X for that particular plant.
- g. If after opening price bids and where applicable taking reference of clause 3 of Annexure- X the competent authority considers the rates to be unreasonable bids of the same shall be rejected. The competent authority shall thereafter prepare the chart of the price bids received of those plants where the rates received are considered to be reasonable. Thereafter the plant wise chart shall be prepared in the order of tender number. Where bidder is L-1 for more than one plant he will be considered for award of the same in the order of such tender numbers subject to terms and conditions contained herein.

7. THE EARNEST MONEY DEPOSIT (EMD) WILL BE FORFEITED UNDER THE FOLLOWING CIRCUMSTANCES:

Earnest Money shall be forfeited if the Bid is withdrawn:-

- a. At any time prior to its rejection.
- b. Before or after the acceptance is communicated to the Bidder.
- c. If the successful Bidder fails to execute the agreement within 10 days of date of letter of acceptance.
- d. In case, it is found that the Bidder has given wrong information or submitted wrong documents in the tender, the concerned firms will be Debarred for a period of three years from participation in the tenders called

by the Corporation, besides forfeiting EMD.

8. EXECUTION OF AGREEMENT:

- a. Corporation will intimate the successful Bidder regarding acceptance of his offer and inform him to execute an agreement. In case the Bidder fails to execute agreement within time limit the EMD deposited by Bidder shall be forfeited.
- b. The successful Bidder shall have to execute an agreement as per Annexure **XIII** with the Corporation. The agreement will be executed on non-judicial stamp paper of Rs. 1000/-, the cost of the same will be borne by the Bidder.
- c. After execution of Agreement the Bidder will be called supplier.

9. PROCEDURE & TIME SCHEDULE FOR SUPPLY OF MATERIAL:

- a. As per the time schedule stipulated by the Corporation, it is necessary that the all the materials and equipments (herein after called as the plant) are to be supplied at the destination within 90 days from the date of order. Further 60 days will be allowed for installations i.e total 150 days will be allowed for a trial run from the date of order.
- b. It is the responsibility of the supplier to effect quality supplies as per the order.
- c. In case, the supplies are delayed by the supplier, the loss caused to the Department /Corporation due to delay, the supplier will be made responsible for which the recovery of the loss amount will be made from BANK GURANTEE of the supplier, depending upon the cost of the material. The amount to be recovered will be decided by the Managing Director of the Corporation and it would be binding on the supplier.

10. ORDER PROCEDURE:

- a. The orders issued by the Corporation for supply of the plant are subject to change regarding date. If any changes are there, they will be communicated to the supplier. According to new schedule, the supplier has to supply the plant at the approved rate. If unexpected changes take place, the Corporation will not be able to pay extra amount for the plant.
- b. Any damages/ breakdowns or losses caused during transportation of material or loss occurred due to theft, fire accident, breakage etc. the supplier will responsible and will bear the loss and the Corporation will not be responsible. It is advised that Bidder should take necessary insurance coverage.

11. AUTHORITY FOR ACCEPTING/ NON-ACCEPTING OF THE ITEMS OF THE PLANT :

It is necessary that the supplier has to abide the instructions for supply of the items of the plant within time stipulation. A committee for quality inspection will be formed, whose decision will be final. As per decision of the committee the supplied item can be rejected in the following conditions:

- a. If the supplied items are not in accordance with specifications or ordered quantity.
- b. In case, the consignment is received after expiry of time schedule.

In the above circumstances, if the consignment is not accepted, the supplier has to take back the same as per the time schedule indicated by the Corporation at its own cost. Under any circumstances, the Corporation will not be responsible for any loss occurred due to return of goods.

12. WARRANTY

Warranty will be TWO YEARS from the date of successful trial run.

The supplier shall remain responsible against any manufacturing defect and malfunctioning of any equipment /instrument/ Automation/ Electrical installation. The same is required to be replaced / repaired with same make and brand within 3 days from the date of complaint in writing by the factory incharge.

13. BANK GUARANTEE

After award of work bidder will sign an Agreement as per Annexure XIII and furnish following Irrevocable Bank Guarantee:-

- a. Bank guarantee equivalent to 50 % of the total order value valid for 6 months from the date of agreement **(If advance required)**.
- b. Bank guarantee for 10 % of the order value valid for two years from the date of agreement (in both the cases as detailed hereunder in point 15 and 16).

14. Inspection by the designated committee will be carried out for all the materials / equipments of the plant. The due payment will be made only after getting satisfactory report from the committee (except 50 percent payment against Bank Guarantee).

15. PAYMENT SCHEDULE (AGAINST BANK GUARANTEE)

PATICULARS	PAYMENT	REMARKS
On submission of bank guarantee of 50 percent of order value	50 percent of order value as advance payment.	Advance shall be paid along with order to supply the plant after agreement.
On supplying material at destination and submitting BILL for advance payment along with details of item supplied and value thereof (As mentioned in Financial Bid).	Maximum up to 25 percent of the total value of the order or actual whichever is less.	It shall be paid when the cost of plant and machinery supplied exceeds 50 percent of the total value of the order.
On successful TRIAL RUN	Balance 25 percent of the total value of the order.	Bank Guarantee of 50 percent will be returned.

16. PAYMENT SCHEDULE (WHERE BIDDER CHOOSE NOT TO TAKE ANY ADVANCE)

100 % payment will be made within 30 days from date of **SUCCESSFUL TRIAL RUN** on submitting verified bills. Bank Guarantee of 10 % of the total order will be released only after 2 years from the date of successful trial run.

17. TENDER OPENING SCHEDULE:

The schedule date for opening of tender is as per the Point B in General Terms & Condition section. In case, above schedule date is announced as a holiday, the next working day will be the date of opening of tender as per schedule time of 04:00 PM.

18. PURCHASE FROM SC/ST CATEGORY ENTREPRENEURS:

As per the state Govt. Policy, if the SC/ST entrepreneur participate in the tender and submits certificate of special caste category of SC/ST from concerned Departments and fulfills the terms & conditions of the tender, they will get a minimum 2 plants of 2500 M.T.

19. Once the Bidder submits the tender, it is understood that Bidder has gone through all the terms & conditions of the tender and accepted them. The Bidder should sign all the documents of the tender.

20. The Managing Director of the Corporation reserves the right to amend/modify partially/completely or repeal the terms & conditions of the tender if exigencies required doing so without any notice, any time before the bid due date.

21. SETTLEMENT OF DISPUTES:

Any disputes or differences which may arise between Bidder and Corporation, it is to be amicably settled and the Managing Director of the Corporation will be the arbitrator. If amicable settlement cannot be reached, the court of Bhopal only shall have the jurisdiction to deal with and decide any legal or dispute arising between them.

22. FORCE MAJEURE CLAUSE:

If at any time during the currency of contract the performance in whole or in part by either party or any obligation under this contract is prevented /delayed by reasons of any war, hostility, acts of the public enemy, civil commotions sabotage, fire, floods, explosions, epidemics, quarantine, restrictions, strike. lockouts or acts of God (hereinafter referred to as eventualities) then neither party will be way of such eventuality be entitled to terminate this contract nor shall have any claim for damages against the other in respect of such nonperformance or delay in performance (provided notice of the happening of any such eventualities is given by either party to the other within 21 days from the date of occurrence thereof) Deliveries under this contract shall be resumed as soon as practicable after such eventualities has come to an end or cease to exist.

23. The Managing Director of the Corporation subject to clause 20 mentioned above may extend time limit maximum up to 4 weeks and imposing penalty up to Rs 1,00,000 per week of such delay . The Managing Director of the Corporation reserves the right to impose penalties at his discretion for breach of the terms and conditions (commensurate with the losses incurred) which may be revoking of Bank Guarantee and/or debarring the supplier for maximum period of 3 years to supply all materials, whatsoever may be, to/through this Corporation.

24. Please note that **Annexure XII** i.e. **Affidavit** is to be submitted on non judicial stamp of Rs 500/-.

25. For all legal proceedings, the District Court Bhopal will have jurisdiction.

General Manager
(RTE)

DETAILS OF THE BIDDER

To

Managing Director
M P State agro Industries Development Corporation Ltd
3rd Floor, Panchanan Bhawan Malviya Nagar
Bhopal

Subject:- DETAILS ABOUT THE BIDDER

Dear Sir,

We are submitting our Bid for "**FULLY AUTOMATIC PLANT FOR PRODUCTION OF 600 M.T. PER MONTH AT HOSHANGABAD**", our other relevant details are as under:-

Name & Address of the Applicant Firm
If Proprietorship
a) Name of Proprietors	...
b) Full Address
c) PAN number
d) GSTN No
If Partnership	
a) Name of all the partners and their address	
b) Is partnership deed registered If yes then date of registration (attach copy of deed)	Yes / No Date.....
If Limited or Pvt. Limited Company under Indian Companies Act 1956.	.
Limited or Private Limited	
Name and address of all Directors as on 31.03.2018	
Registered Office of the Company	
Date of Certificate of Incorporation	
Memorandum & article of Association (submit copy)	
Location of Production units	
Year of Establishment of the units.	
E-mail address for all future correspondence	
Name of Person Signing the TENDER (as per Power of Attorney submitted)

I here by confirm that all the above information is true to the best of my knowledge & belief. All the documents as required in the documents as enclose.

Date

Seal & Signature of the Bidder
or their authorized Representative

Note: Separate sheet may be used if necessary

AFFIDAVIT

We.....hereby offer for the supply of **“FULLY AUTOMATIC PLANT FOR PRODUCTION OF 600 MT S.N.F. EVERY MONTH AT HOSHANGABAD”** conforming to the Specifications as mentioned in TENDER.

We undertake to supply such quantities of material as per Specification as mentioned in TENDER, as we may be called upon to supply and under the conditions here-to enclosed during the allotted period from the date of execution of the agreement on the rates agreed upon, at the places specified by the M.P. State Agro Industries Development Corporation Limited within the specified delivery period.

We undertake that our firm has neither been Blacklisted/Debarred by any Government / Government Undertaking /Bank nor penalized on the same ground. We also undertake that no legal proceeding is pending in any Courts on the same grounds.

We undertake that the rates given to the Corporation are the lowest price, in accordance to the prevailing rates of the Company / their other authorized dealer & market condition. In case of any dispute or discrepancy in the submitted rates we will be solely responsible. In such case the Corporation will be free to recover the losses or impose penalties as decided by the Managing Director of the Corporation.

We hereby agree to abide by and fulfill all the terms and conditions of tender document and annexure there to. In case of any default, the Corporation will be free to forfeit EMD as per clause 7 of annexure X.

The sum of Rs. 3,50,000 (Rs. Three Lac Fifty Only) in the form of Demand draft is herewith enclosed as Earnest Money Deposit which shall be retained by The MP State Agro Industries Development Corporation Limited till satisfactory completion of order.

I have read and fully understood the terms and conditions of supplies etc. mentioned in the documents.

Name :.....

Designation:.....

(Signature with Office Seal..)

Witness:

1.

2.

Note: To be submitted on non judicial stamp of Rs 500.00

DRAFT AGREEMENT

This agreement made at Bhopal this day ofbetween Madhya Pradesh State Agro-Industries Development Corporation, 'Panchanan, 3rd Floor, Malviya Nagar, Bhopal, M.P. hereinafter referred to as the 'Corporation' which expression shall unless repugnant to the context or meaning there of includes its successors and assigns on the one part.

AND

M/s. having its office at through Shri designation(hereinafter referred to as the Supplier whose expression unless repugnant to the context and meaning thereof includes its assigns, successors and administrations on the other part.

WHEREAS the Corporation invited Tender Document (TENDER) for supply of - **“FULLY AUTOMATIC PLANT FOR PRODUCTION OF 600 MT S.N.F. EVERY MONTH AT HOSHANGABAD”** on the terms and conditions envisaged in the terms schedule issued with the Tender Document and purchased by the supplier.

AND WHEREAS the supplier has accepted each and every term and condition contained in the Tender Document, while submitting his offer.

AND WHEREAS the Corporation accepted the offer submitted by the supplier vide its letter of acceptance no.dated in consideration of the premises and the mutual premises and undertakings hereinafter specified and for other good and valuable consideration this agreement witness and is hereby agreed on the conditions of the Tender. The following documents shall form and be constructed a part of the Agreement Deed:-

- a. The Tender submitted by the supplier including all the annexure attached thereto.
- b. Schedule of specifications for supply of -----
- c. The letter of acceptance dated ----- issued by the Corporation.
- d. The offer submitted by the supplier.
- e. The rates mentioned in annexure to agreement.

The aforesaid documents shall be taken as complementary and mutually explanatory of one another but in case of discrepancies and ambiguities shall take precedence in the order set out above. In this regard the decision of Managing Director, M.P. State Agro-Industries Development Corporation Limited shall be final.

IN WITNESS WHEREOF the parties hereto have signed this agreement on the day and year referred to above.

For Supplier

.....
.....

For

M.P. STATE AGRO INDUSTRIES
DEVELOPMENT CORPORATION LIMITED

Signature with Office Seal

Deputy General Manager (Marketing)

Witnesses 1 2

Witnesses 1 2

INCLUSIONS WHILE QUOTING FINANCIAL BID

- Fabrication and supply of Plant and machinery required for the production of SNF (Powder) and Khichdi as per the this Tender requirement.
- Steel required for the fabrication of Mezzanine floor for machine installation, maintenance platform, storage bins, hoppers, spouting , bagging hoppers/stands, stairs, railing etc.
- Steel required for the installation of machines, motors, safety guards on machines, covers of the elevators pit and other related erection work.
- Spouting and Ducting
- MCC panels, PLC panels, UPS for PLC panel, 24" LCD monitor and related material
- Electrical cables, data cables, level sensors, hooters, alarm bells, emergency stop station, cable trays, and accessories for the laying of cables, installation of panels and other related electrical work.
- Lightening arrestors, Earthing strips, earthing wires , etc. for connecting motors.
- Erection Tools, Tackles and consumables.
- Safety gears like hat, goggles, shoes , etc required for the erection work.
- Final paint of the entire Plant and Machinery.
- Electrical and Mechanical installation.
- Supervision of Commissioning
- Freight
- Supply of any other item and services that gets missed out while preparing this Tender document but are required to run the plant efficiently.
- Temporary Electric and Water connection.

EXCLUSIONS

- Thermopac and thermic fluid supply line along with the necessary valves, etc . upto the Roaster machines.
- Main Oil storage Tanks, pumps, valve and pipeline upto the small oil tanks installed in the plant area.
- Compressor and compressed air line upto the machines installed in the plant area
- Transformer, Automatic Power factor correction panel, Servo stabilizer, Diesel generator, Main LT Panel and LT cables upto the main MCC panel installed in the centralised control Panel Room
- Lighting, Air cooling/ air conditioning of the plant or panel room , Cooling tower, exhaust fan, etc.
- Earthing pit with earthing material upto the MCC and PLC panels installed in the centralised control Panel room
- FFS Packing machines, Printing machine, weighing scale, stitching machines, conveying belts , trolleys, etc.
- Raw material , packing material and men power for the Trial run and Commissioning of the plant
- Laboratory equipments, Fire safety equipments and other such material that are not directly related to the production process.

SAMPLE SPECIFICATIONS SHEET BUCKET ELEVATOR		
SNo.	SPECIFICATIONS	DESCRIPTION
1	MODEL	BE 10"
2	DESIGN TYPE	TWIN LEG TYPE
3	CAPACITY	25 TPH
4	GEARED MOTOR	CROMPTON/SIEMENS MAKE , GEAR HEAD PBL MAKE (GREASE FILLED)
5	MATERIAL OF CONSTRUCTION	MILD STEEL IS 2062 HR
6	THICKNESS OF MATERIAL	2 mm FOR INTERMEDIATE CASINGS, 4mm FOR TOP & 4 mm FOR BOTTOM CASINGS, DISCHARGE PATH COMPLETELY LINED WITH 10 mm THICK UHMWPE.
7	MATERIAL OF BUCKET	M.S
8	THICKNESS OF MATERIAL	1.6 mm
9	MATERIAL / GRADE OF BELT	315/3 NYLON /NYLON GDM 24 WITH 3/1.5 TOP AND BOTTOM BLACK RUBBER
10	WIDTH OF BELT	275mm
11	WIDTH OF BUCKET	250mm
12	PROJECT OF BUCKET	150 mm
13	HEIGHT OF BUCKET	125 mm
14	CAPACITY IN LTR	1.9 Ltr.
15	TYPE OF BEARING (Top)	UCP 210
16	SIZE OF SHAFT (Top)	50 mm AT BEARING END
17	TYPE OF BEARING (Bottom)	UCF 208
18	SIZE OF SHAFT (Bottom)	40 mm AT BEARING END
19	BEARING MAKE	NTN/SKF
20	PULLEY MOC	CI/ MS FABRICATED
21	PULLEY DIA HEAD/TAIL	500 mm
22	PULLEY WIDTH	300 mm
23	BACK STOP	PAWL & RATCHET TYPE BACK STOP PROVIDED
24	SUPPORTING STRUCTURE & PLATFORM	NOT IN EQUIPMENT SCOPE OF SUPPLY
25	PAINT	EPOXY PAINT AFTER PROPER SURFACE TREATMENT

OPTIONALS:

1. Limit switch at over flow flap and zero speed switches can be provided at additional price.

