

P-12027/8/2019-PC DIVISION
Government of India
Ministry of Food Processing Industries
Panchsheel Bhawan, August Kranti Marg,
New Delhi – 110049

Dated: 03.08.2020

Subject: Cost norms of Plant & Machinery and Equipment for Cereal & Grain Sector – Reg.

Ministry has constituted a Committee under the Chairmanship of VC, NIFTEM for fixing cost norms for infrastructure and processing facilities for working out eligible project cost for all the schemes under Pradhan Mantri Kisan Sampada Yojana (PMKSY).

2. Based on the examination of cost of Plant Machinery and Equipment received from Original Equipment Manufacturers (OEMs), inputs available with the Members of the Committee, feedback and consultations, the Committee has proposed the cost norms for Plant & Machinery and Equipment required for food processing indicating the broad/ general specifications of the machine and its capacity.

3. The Ministry, based on the recommendations of the Committee and review thereupon, has determined the cost norms for the Plant & Machinery and Equipment for working out the Eligible Project Cost for the purpose of calculating the amount of grant as financial assistance to the projects under the schemes of the Ministry.

4. The cost norms for Plant & Machinery and Equipment has been fixed on the basis of OEM quotations of indigenous manufacturers for calculation of eligible projects cost/ grant under the schemes of the Ministry. This will help promote indigenous machinery. Entrepreneurs desiring to import such machinery may bear extra cost on their own. Wherever indigenous brand manufacturers do not exist, the cost norm will be fixed on the basis of cost of the lowest OEM quotation of imported machinery.

5. Cost norms of Cereal & Grains Sector are given at Annexure.



6. Grant-in-aid amount for the proposals received against the Eols and approved by the Inter-Ministerial Approval Committee under all the schemes of the Ministry will be calculated based on the above cost norms.

7. The cost of any other facilities/ components to be created under the projects and not covered under the cost norms may be considered based on the quotations submitted along with the proposal and inputs of technical member of the Committee subject to the approval by the Inter-Ministerial Approval Committee.

This has the approval of the competent authority.

Encl: As above



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Cost norms of Plant & Machinery and Equipment for Cereal & Grain Sector

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2. Based on the examination of cost of Plant Machinery and Equipment received from Original Equipment Manufacturers (OEMs), inputs available with the Members of the Committee, feedback and consultations, the Committee has proposed the cost norms for Plant & Machinery and Equipment required for food processing indicating the broad/ general specifications of the machine and its capacity.

3. The Ministry, based on the recommendations of the Committee and review thereupon, has determined the cost norms for the Plant & Machinery and Equipment for working out the Eligible Project Cost for the purpose of calculating the amount of grant as financial assistance to the projects under various schemes of the Ministry.

4. The cost norms for Plant & Machinery and Equipment have been fixed on the basis of OEM quotations of indigenous manufacturers for calculation of eligible projects cost/ grant under the schemes of the Ministry. This will help promote indigenous machinery. Entrepreneurs desiring to import such machinery may bear extra cost on their own. Wherever indigenous brand manufacturers do not exist, the cost norm will be fixed on the basis of cost of the lowest OEM quotation of imported machinery.

5. Cost norms have been determined for commonly used Plant & Machinery and Equipment required by the food processing industries. The list is not exhaustive and more Plant & Machinery and Equipment would be included in due course.

6. The costs mentioned are basic cost of Plant and Machinery, exclusive of tax, freight, installation and commissioning charges.

7. The cost of any other facilities / components proposed to be created under the project and not covered under the cost norms may be considered by Technical Committee based on the

quotations submitted along with the proposal and inputs of technical member of the Committee subject to the approval by the Inter-Ministerial Approval Committee.

8. If the capacity of components differs from those provided in cost norms, prorated cost may be considered by Technical Committee based on quotations submitted along with the proposal and inputs of technical member of the Committee subject to the approval by the Inter-Ministerial Approval Committee.

9. Plant and machineries, their material of constructions and supporting accessories should be of good quality and make, it should comply with the standards for quality and safety available for the same in the country, wherever applicable.

10. All the major equipment of the plant should be designed, engineered and fabricated in accordance with the prevailing and applicable Indian Standards as laid down by BIS. Wherever Indian Standards are not available, international standards like EHEDG/3A standards may be considered.

11. CPWD norms, as per the prevailing cost index, would be applied on civil construction works proposed in the projects.

12. The cost norms determined for Plant & Machinery and Equipment for Cereals & Grain Sector are given in the table below:

A. Plant, Machinery and Equipment for Food Grains Cleaning, Sorting and Grading plant

Sr.No.	Major Machineries	Capacity (in Ton Per Hour (TPH))	Cost (in Rs. Lac)
A.1. Semi Automatic	Cleaner Destoner Aspirator	1	3.30
	Magnetic Separator Intended cylinder Grader Weighing Balance at platform	2-3	5.40
A.2.	Cleaner Destoner Aspirator	1-2	18.70

Fully Automatic	Magnetic Separator Intended cylinder Grader	3	26.30
	Weighing Balance at platform Fork lift Bucket Elevators Colour sorter for higher capacity (4-5 ton/hr) only	4-5	74.00

B. Plant, Machinery and Equipment for Wheat Flour (Atta) Mill Machinery

Sr. .No.	Major Machineries	Capacity (In TPH)	Cost (In Rs. Lac.)
B.1. Semi Automatic Wheat Flour (Atta) Mill.	Cleaning machine with destoner Storage tank Flour mill	0.25	4.30
	Atta grader Wheat crusher	0.50	7.65
	Weighing balance Sealing machine	1.0	12.50
	<i>For higher capacity 1 ton /hr and more</i> Semi-automatic packaging Machine Fork lift (optional)	2.0	19.80
	Cleaning machine with de-stoner Bucket and belt elevators Conveyor Storage tank Flour mill Pneumatic system for flour lifting Centrifugal atta separator Wheat crusher Gravity separator Semi-automatic packaging Machine (for lower capacity)/ Form fill and seal Machine (for higher capacity) Fork lift	1 2 3-4 5-6 7-8	14.35 42.00 85.00 140.00 215.00
B.2. Fully Automatic Wheat Flour (Atta) Mill	<i>For higher capacity (>5 tons/ hr) plant-</i> Intensive dampner Intensive scourer Cockle cylinder with high density sheets Jet filter	8-10 12-15	270.00 350.00

C. Plant, Machinery and Equipment for Fully Automatic Modern Wheat Flour Mill Machinery including packaging

Sr. No.	Major Machineries	Capacity (in TPH)	Cost (In Rs. Lac.)
1.	Drum sieve / Reel machines Pre-cleaner	2	160.00



	Destoner Vibro separator Intensive dumpner Pneumatic type aspiration channel	3-4	240.00
	Bucket elevators Water dampner Small vibrio separator Airline aspiration channel	5-6	325.00
	Roller mills Heavy duty chakki Plan sifter Bran finisher Vibrio purifier Storage tanks Fork lift Form fill and seal machine	7-8	410.00

D. Plant, Machinery and equipment for wheat flour (Atta) mill machinery (Chakki based)

Sr. No.	Major Machineries	Capacity (in TPH)	Cost (In Rs. Lac.)
D.1. Semi-Automatic wheat flour (Atta) Plant with Manual Control Chakki based	Intake Table Elevators	0.25	12.05
	Separator	0.35	12.55
	De-stoner	0.50	13.25
	Chakki 24/30" with Motor	0.70	14.65
	Fans And filter	1.0	42.15
	Vibratory Separator for Atta Including All Electric Motors Including all machine accessories & Centrifugal Fans	1.40	84.55
	Including Electric Control Panel Including Iron & Steel for Platforms	2.0	112.90
D.2. Automatic wheat flour (Atta) Plant with Semi-Automatic Control Chakki based	Intake Table Elevators	0.40	13.60
	Separator	0.80	16.70
	De-stoner	1.20	44.20
	Chakki 30" with Motor	1.60	88.70
	Fans Vibratory Separator for Atta Including All Electric Motors Including Electric Control Panel Including Iron & Steel for Platforms	2.00	117.10

E. Cost norms of plant, machinery and equipment for fully automatic wheat flour mill machinery

E.1. Automatic wheat flour (Atta) Plant with Automatic Control Chakki			
Sr. No.	Major Machineries	Capacity (in TPH)	Cost (In Rs. Lac.)
1.	Intake Table Elevators Separator De-stoner Silo Chakki 24/30" with Motor Fans And filter	0.50	17.15
	Vibratory Separator for Atta Plansifier for atta sieving Including All Electric Motors Including all machine accessories & Centrifugal Fans	1.0	22.70
	Including Electric Control Panel& Touch Screen Including Iron & Steel for Platforms	1.50	49.65
		2.0	102.70
		3.0	129.55

F. Cost norms of Plant, Machinery and Equipment for Rice Mill Machinery

F.1. Mini Rice Mill			
Sr. No.	Major Machineries	Capacity (in TPH)	Cost (In Rs. Lac.)
1.	Mini rubber roll paddy dehusker	0.4 - 0.50	2.50
	Aspirator with precleaner Cone polisher	0.7 -0.8	3.80
	Rice grader Weighing Balance Sealing Machine	1.0	5.10
F.2. Semi-Automatic Rice Mill			
Sr. No.	Major Machineries	Capacity (in TPH)	Cost (In Rs. Lac.)
1.	Paddy cleaner cum destoner Rubber Sheller	1.0	13.50
	Aspirator Paddy separator	2.0	21.00
	Cone polisher Rice Grader	3.0	32.00

	Bucket elevators Fork Lift (Optional) Weighing machine at platform Semi Automatic Packaging machine		
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F.3. Fully Automatic Rice Mill

Sr. No.	Major Machineries	Capacity (in TPH)	Cost (In Rs. Lac.)
1.	Modernised fine cleaner and destoner	1.0	28.50
	Fully Automatic Paddy dehusker	2.0	35.00
	Husk separator	3.0	60.00
	Paddy separator	4.0	85.00
	Rice cone polishers	5	160.00
	Plan sifter with aspirator	6-7	210.00
	Drum Grader	8-10	360.00
	Bucket Elevators Fork lift Weighing machine at platform Form fill and seal machine <i>For capacity >1.0 ton/hr</i>	10-12	420.00
	Cyclones	13-15	470.00
	Rice length grader Rice silky polishers Pneumatic bran separation system Magnetic separator <i>For capacity >5.0 ton/hr</i> Silk shine polisher Colour sorter		

F.4. Parboiling unit in fully automatic rice mill

Sr. No.	Major Machineries	Capacity (in TPH)	Cost (In Rs. Lac.)
1.	Soaking tanks Steamer Boiler LSU Drier Bucket Elevators and conveyors Including All Electric Motors Including Electric Control Panel Including Iron & Steel for Platforms	1-2 (15-20 tons in one batch)	76.00
		3 (25-30 tons in one batch)	90.25
		4-5 (45-50 tons in one batch)	142.50
		6-7 (65-70 tons in one batch)	166.25

F.5.Rice flaking unit			
Sr. No.	Major Machineries	Capacity (Kg/Hour)	Cost (In Rs. Lac.)
1.	Roaster	150-200	6.1
	Poha making machine	350	13
	Grader	500-550	16.75
	Flaker Elevator	950-1000	25.85
F.6.Rice Puffing unit			
Sr. No.	Major Machineries	Capacity (Kg/Hour)	Cost (In Rs. Lac.)
1.	Vertical mixer Extruder Belt conveyor Rotary roaster Flavouring drum	400	29.75

G. Plant, machinery and equipment for pulse mill machinery

G.1. Mini Dal/Pulse mill			
Sr. No.	Major Machineries	Capacity (in TPH)	Cost (In Rs. Lac.)
1.	Mini Dal mill	0.1 - 0.15	2.55
	Pre cleaner Grader Sheller	0.25 -0.30	4.10
	Dryer Weighing Balance Sealing Machine Including all electric motors	0.50	7.40
G.2. Semi Automatic Pulse/Dal mill			
Sr. No.	Major Machineries	Capacity (in TPH)	Cost (In Rs. Lac.)
1.	Pre- Cleaner cum Grader Dal mill Dal sheller Pre cleaner	0.5	10.70

	Dal destoner Dal grader Dal dryer Dal polisher Weighing Balance Fork lift Semi Automatic Packaging machine Including all electric motors Including electric control panel Including iron and steel platforms	1.0	26.60
		2.0	49.40

G.3. Fully Automatic Pulse/Dal mill

Sr. No.	Major Machineries	Capacity (in TPH)	Cost (In Rs. Lac.)
1.	Pre cleaner Vibrio destoner Gravity separator Dal grader Emery roll machine Chakki with emery stone Bucket Elevators Tray drier Dal polisher Colour sorter Fork Lift Weighing machine at platform Form fill and seal machine Including all electric motors Including all machine accessories Including electric control panel Including iron and steel platforms	1.0	104.50
		2.0	223.25
		3.0-4.0	361.00

H. Plant, machinery and equipment for Oil mill

H.1. Mini Oil mill			
Sr. No.	Major Machineries	Capacity (Kg oil seeds/Hour)	Cost (In Rs. Lac.)
1.	Single chamber oil expeller with reduction gear box Filter press Steam round kettle for cooking seeds	20-25	2.00
		35-40	2.50

	Boiler Oil tank Weighing balance Including all electric motors Including all machine accessories Including iron and steel platforms	50-60	3.00
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H.2. Semi automatic Oil mill

Sr. No.	Major Machineries	Capacity (Kg oil seeds/Hour)	Cost (In Rs. Lac.)
1.	Single chamber oil expeller with reduction gear box	70-80	5.25
	Filter press		
	Steam round kettle for cooking seeds	125-150	6.30
	Boiler		
	Motor Rail	175-200	7.40
	Oil tank		
1.	Weighing balance at platform	300-350	10.65
	Semi automatic bottling and capping machine	400-450	11.75
	Including all electric motors		
	Including all machine accessories		
1.	Including iron and steel platforms	500-550	14.10

H.3. Fully automatic Oil mill

Sr. No.	Major Machineries	Capacity (Kg oil seeds/Hour)	Cost (In Rs. Lac.)
1.	Single chamber oil expeller with double reduction gear box	500-550	18.25
	Filter press		
1.	Steam round kettle for cooking seeds	600-650	20.75
	Boiler		
	Oil tank		
	Bucket elevators		
	Motor Rail		
	Horizontal Conveyors		
	Weighing balance at platform		
	Fully automatic bottling and capping machine		
	Including all electric motors		
	Including all machine accessories		
Including iron and steel platforms			

I. Solvent extraction plant

Sr. No.	Major Machineries	Capacity	Cost (In Rs. Lac.)
1	Solvent extraction plant to process soya bean	300 TPD 300 Tons For Soyabean Seeds Per 24 Hours	535.00

J. Millet Processing Plant

J.1. Primary Processing

Sr. No.	Particulars	Capacity	Cost (In Rs. Lac.)	
			MS	SS
1	Cleaning	100 Kg/h 1Ton/h	10.50	27.50
2	Sorting			
3	Grading			
4	Drying			
5	Dehulling			
6	Polishing or Pearling			
7	Elevators			
8	Size Reduction or Grinding			
9	Storage (SS 304)			
10	Packaging Machine for Grains	500g to 5 Kg	8.00	8.00
11	Packaging Machine for Powder	500g to 5 Kg	8.00	8.00

J.2. Secondary Processing Roaster

Sr. No.	Particulars	Capacity	Cost (In Rs. Lac.)
1	Millet Roaster	100-150 Kg/hr	21.00
		200 Kg/hr	23.53
2	Packaging Machine	50 to 500g Pouch (Single Head)	7.56
		50 to 500g Pouch (Double Head)	11.00

K. RTE Extrusion Food Processing Line

Sr. No.	Particulars	Capacity	Cost (In Rs. Lac.)
1	Pasta Plant	100-150 Kg/hr	46.22
	a. Pasta Making Machine	200-250 Kg/hr	55.00
	b. Drier c. Steamer		
2	Packaging Machine	50 to 500g Pouch (Single Head)	7.56
		50 to 500g Pouch (Double Head)	11.00

L. RTE Extrusion Food Processing Plant

Sr. No.	Particulars	Capacity	Cost (In Rs. Lac.)
1	Extrusion line Twin Screw Extruder Hammer Mill Pulveriser Flour Mixer	100-150 Kg/hr	110.17
	Conveyor (Air, Cooling) Multilayer Drier Hoister Oil Sprayer Flavoring Machine	200-250 Kg/hr	131.36
	Flaker Roaster Vibro Sifter Core Filler Shaper Puff Gun Machine	300-350 Kg/hr	156.78
2	Packaging Machine	50 to 500g Pouch (Single Head)	7.56
		50 to 500g Pouch (Double Head)	11.00

M. Millet Processing Unit

Sr. No.	Major Machineries	Capacity	Cost (In Rs. Lac.)
1	Intake Section and Grinding Section Intake Hopper with Magnetic Grill Hoister Pulveriser Mixing Section Ribbon Blender Transfer conveyor Bucket Elevator Cooking and Extrusion Section Storage Bin with pneumatic slide gate Twin Screw Extruder – Electrical heating Core Filled Snacks Machines Core filler Shaper for Pillows and triangle shaped snacks Shaper for long and short sticks Raw flakes Manufacturing Machines Vibratory feeder Air conveyor Flaking Machine	150 - 200 kg/h	125.00

	Hoister Drying Section 5 Layer Electrical Dryer Seasoning Section Double Drum oil coating machine with oil sprayer and air compressor Cooling conveyor		
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N. Supplementary Nutritious Food plant

Sr. No.	Major Machineries	Capacity	Cost (In Rs. Lac.)
1	Grain cleaning and storage Blending and grinding section Flour roasting and cooling Additive storage and blending Packing section (except packaging machine)	2500 MT per Month For Soyabean Seeds Per 24 Hours	260

