

PROJECT PROFILE

ON

WHEAT & PADDY THRASHERS

PART-I

NAME OF THE PRODUCT : **WHEAT & PADDY THRASHERS.**

QUALITY & STANDARD : There is no BIS specification for this item.

PRODUCTION CAPACITY : The production capacity of the unit at 75% capacity utilisation.

Quantity: 600 Nos.

Value: Rs. 36,00,000/-

MONTH & YEAR OF PREPARATION : January, 2013.

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WHEAT & PADDY THREASHERS

A. INTRODUCTION:

Wheat and Paddy threshers are agricultural implements used for mechanical threshing of wheat & paddy to separate them from the straws. This quickens post harvesting agricultural operation to facilitate cultivators & send their product to the market.

B. MARKET POTENTIAL:

With a nationwide drive to grow more food, it has become imperative to cut down time for cultivation of its operational storage, more over, owing to the increased need of our growing population, multiple cropping has become a must. Hence, it is considered necessary to cut down time for post harvesting work like threshing etc. to enable our men with ploughs to go to the field again for the next crop. So use of wheat & paddy threshers is becoming more & more popular and manual thresh is being progressively discarded all over the country. Considering the size of the country and its vast agricultural operation to feed 75 million people. The requirement of agricultural implements like wheat & paddy threshers is very much. As such, there is a good market for this item.

C. BASIS & PRESUMPTIONS:

1. This project is based on the working of single shift basis and 300 working days in a year.
2. The cost of machinery and equipments/materials indicate refer to a particular make and the prices are approximate to these prevailing at the time of preparation of this profile.
3. The cost of packaging, forwarding, tax etc. and installation and electrification of machinery is taken @ 15%.
4. Non-refundable deposits, project cost, trial production, fees etc. are considered under pre-operative expenses.

5. Depreciation has been taken as an :-
 - a) on machinery & equipments @ 10%
 - b) on office furniture & fixture @ 20%
6. Interest on total capital investment has been taken @ 13% per annum.
7. Minimum 30% of the total investment is required as margin money.
8. Pay back period of the project will be 7 years, with half-yearly installments.
9. To run the unit throughout the year.
10. Break even point has been calculated at the full capacity utilization.

D. IMPLEMENTATION SCHEDULE:

The following steps involves in the implementation of the project:-

I.	Preparation of Project Report-		
	a) Inviting quotation	:	6 Weeks
	b) Project Report Preparation	:	2 Weeks
II.	Provisional Registration of SSI	:	1 Weeks
III.	Financial arrangement	:	12 Weeks
IV.	Purchase and Procurement of machinery	:	12 Weeks
V.	Installation, Electrification of machine	:	6 Weeks
VI.	Production Trials	:	<u>2 Weeks</u>
			<u>41 Weeks</u>
	Say	:	9 months

E. TECHNICAL ASPECTS:

1. Process of Manufacture:

Thresher is a rotating drum with a good number of best-galvanized wires fixed on its surface to let the grains of paddy and wheat for their separation from the stem. They are available in several sizes. Out of these 2'-6" long X 15" dia size being quite popular are, has been taken in the project profile for the purpose of calculation. Sal wood (hard wood) balloons are fitted on the surface of a rigid constructed steel cylindrical frame. G I wire hairpins is fitted on the wooden surface for continuance of threshing operation. A shaft with ball bearing is fitted in it for rotating purpose the project profile is for manufacturing pedal drives threshers. Since in rural areas, power may not be available everywhere with the cultivator. However it is desired to run them with power, it can be easily done with suitable coupling arrangement, after dismantling the pedal.

2. Quality Control & Specification :

While fabricating the drum, care should be taken so that it is not unbalanced. This will result in heating the bearing and damage of the same early. This can be controlled if careful check on correctness of size of each component before welding the same is due. Since a good number of components are of the same size, suitable templates may be made to control the accruing of these lengths. Similarly for the diameter of the shafting "go" and "not go" gauges may be used , since, ultimate use of the machine is quite crude, so no much use of the machine is quite crude. So no much use of precision gauges etc. necessary. Only normal control of dimensional accuracy is sufficient according to the design of the equipments.

3. Production capacity (per annum)-

600 No. threshers per annum.

4. Total Power requirement- 5 KW

5. Pollution control- Not required.

6. Energy conservation-

Suitable efficient electrical motors should be used in machines with suitable shunt capacitors.

F. FINANCIAL ASPECTS

i. Fixed Capital-

Land & building-

Land & Building	200 sq. mtr.	@20/-	4,000
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ii. Machinery & Equipment-

Sl. No.	Description	Ind/ Imp.	Qty. (Rs.)	Amount (Rs.)
1.	Centre lathe 6 ½" swingX6' bed with 2 HP motor, starter & standard accessories @ 75000/- each	Ind.	2	1,50,000
2.	Pillar drilling machine-1" capacity 1 HP Motor & starter and standard accessories	Ind.	1	15,000
3.	Power hacksaw machine 160 mm dia with 1 Hp motor	Ind	1	15,000
4.	Hand shearing machine 10" long heavy duty	Ind	1	10,000
5.	Elec. Arc welding set(transformer)350A, 440 VAC	Ind.	1	30,000
6.	Air Compressor 85 PS I with spray painting equipment	Ind	1	30,000
7.	Portable electric drilling machine 1/2" capacity	Ind.	1	7,000
8.	Portable hand grinder	Ind	1	7,000
9.	Double ended bench grinder 8" dia	Ind	1	5,000
10.	Installation of electrification@ 15%			40,350
11.	Pre-operative expenses			30,000
	Total:			3,39,300
b.	Testing equipment			50,000
	Hand tools & measuring instruments			
c.	Office furniture			50,000
	Total:			<u>4,39,350</u>

iii. WORKING CAPITAL (per month):

(a) Personnel:

Designation	No.	Salary	Total (Rs.)
Manager	1	10000	10,000
Supervisor	1	7000	7,000
Skilled worker	3	6000	18,000
Semi-skilled worker	4	5000	20,000
Helper	3	3000	9,000
Clerk cum typist	1	5000	5,000
Peon/Watchman	2	3000	<u>6,000</u>
			75,000
Perquisites of salaries @ 15%			<u>11,250</u>
		Total :	<u>86,250</u>

ii. Raw material including packaging materials (per month):

Sl. No.	Items	Qty.	Rate	Amount Rs.
1.	M.S. Angle 25x25x3mm	600 kg.	33/Kg	32,175
2.	M.S. Angle 35x35x5mm	125 kg.	33/Kg	
3.	M.S. Flat 35x6 mm	100 Kg.	33/Kg	
4.	M.S. Bar 22mm dia/6mm dia	150 Kg.	33/Kg	
5.	M.S. Sheet 3mm	400 Kg.	40/Kg	44,000
6.	M.S. Sheet 1 mm	700 Kg.	40/Kg	
7.	CI Casting for (Hub, Bracket, hanger, pinions etc.	125 Kg	40/Kg	5,000
8.	GI Wire 10 SWG.	375 Kg.	250kg.	18,750
9.	Salwood/hardwood	20 cft.	1200/Kg	24,000
10.	Welding rod, paints, gas, M/screw nut bolt etc.			20,000
		Total:		1,43,925

iii. Utilities (per month):

Electricity @ Rs.6.00 per k.w.	Rs. 6,000
Water	<u>200</u>
	<u>6,200</u>

iv. Other contingent expenses (per month):

1. Rent	4,000
2. Postal & stationery	2,000
3. Repair & maintenance	1,000
4. Advertisement and Sales expenses	1,500
5. Transportation charges	2,000
6. Insurance	500
7. Telephone	2,000
8. Misc. expenditure	1,000

Total : 14,000

v. Total recurring expenditure (per month(Total i to iv) 2,50,375

vi. TOTAL CAPITAL INVESTMENT:

Fixed capital Rs. 4,39,350

Working capital Rs. 2,50,375

Total: Rs. 6,89,725

Say : Rs. 6,90,000

G. FINANCIAL ANALYSIS:**1. Cost of production (per annum):**

Total Recurring expenditure 30,04,500

Depreciation on machinery and equipment @ 10% 26,900

Depreciation on office furniture & fixture @ 20% 20,000

Interest on capital investment @ 13% 89,700

Total : 31,41,100

2. Turnover (per annum):

Item	Qty.	Rate (Rs.)	Value (Rs.)
By sale of 600 Nos. Paddy & Wheat threshers	600	Rs.6000/Thresher	36,00,000/-

3. NET PROFIT: (p.a.)

$$\text{Turnover} - \text{Cost of Production} = 4,59,000/-$$

4. Net Profit ratio:

$$\frac{\text{Net Profit} \times 100}{\text{Turnover}} = \frac{4,59,000 \times 100}{36,00,000} = 12.75\%$$

5. Rate of Return:

$$\frac{\text{Net Profit} \times 100}{\text{Total capital investment}} = \frac{4,59,000 \times 100}{6,90,000} = 66.52\%$$

6. Break even Analysis:

i. Fixed cost

a. Rent	48,000
b. Total deprecation	46,900
c. Interest on total capital investment	89,700
d. 40% of salary & wages	4,14,000
e. 40% of other expenses excluding rent	<u>67,200</u>
	<u>6,17,800</u>

ii. Break even point

$$\frac{\text{Fixed cost} \times 100}{\text{Fixed cost} + \text{Profit}} = \frac{6,17,800 \times 100}{6,17,800 + 4,59,000} = 57.37\%$$

H. ADDRESSES OF MACHINERY & EQUIPMENT SUPPLIERS:

1. M/s Batliboi & Co., 26, R.N. Mukherjee, Kolkata-1.
2. M/s National Engg. Works, 41, Khan Market Tis Hazari, Delhi-06
3. M/s Unit Machine Tools Corporation 12, OLF, Industrial Area, Najafgarh Road, Delhi-15.
