PROJECT PROFILE

ON

POTATO CHIPS

Month & Year
Aug 2010

PREPARED BY
TANSTIA-FNF SERVICE CENTRE
B-22, INDUSTRIAL ESTATE
CHENNAI-600032

Supported by
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POTATO CHIPS

1. *Introduction*

Potato chips are the most widely accepted snack food. They are not seasonal and consumed by one and all right round the year. The market for potato chips is an assured and growing one.

2. *Market*

The product finds placement in all “A” , “B” and “C” class outlets, self service, departmental stores and supermarkets. In addition specific outlets normally termed as “Chips Point” manufacture fresh and hot chips for on the spot sales.

3. *Packaging*

Packaging of chips is usually carried out in metallized polyester - polyethylene pouches in capacities of 25 gms, 50 gms, 100 gms and 1 kg.

4. *Production capacity*

- The plant operates to one shift of eight hours duration.
- The time period required for achieving full capacity utilization is six months.
- The production capacity is rated at 250 kilograms of raw material input (potatoes) per shift of 8 hours.
- The total quantity of potato processed per annum is 75,000 kgs.
- The estimated production of chips per annum of 300 working days is calculated as follows:
- a. The deoiled weight of chips on frying - 11250 kilograms
- b. Oil absorbed by these chips (22%) - 2475 kilograms
- c. Weight of salt and spices - 275 kilograms
- d. Total weight of chips obtained - 14000 kilograms

5. *Sales revenue*

- Rs. 42.00 lakhs per annum @ Rs. 7.50 per pack of 25 grams.

6. *Production process outline.*

Potatoes are first selected and diseased and green ones segregated. The potatoes to be processed are washed and peeled in their respective machines.

They are then sliced with the thickness ranging from 1 to 1.5 millimeters. Immediately after slicing, they are blanched in a bucket of bisulphite solution for a few seconds. The excess water is removed by spinning the slices in a centrifugal machine. The slices are then fried in medium hot oil at 180 degrees centigrade for 2 minutes to obtain crisp golden brown chips. The chips are transferred to the spice coating pan where salt and spices are dusted. They are then packed in pouches of 25 grams capacity.

7. Quality specifications

- Moisture in chips - 2 percent maximum.
- F.F.A of oil used as oleic acid - 0.1% maximum.
- Peroxide value of oil - nil
- The product should be free from coliforms, salmonella and streptococci bacteria.

8. Pollution control measures

Not necessary as there are no pollutants or effluents.

9. Energy conservation measures

Common measures will do.

10. Land and construction cost for the proposed unit

The proposed unit is to be taken up on lease. The total leased area is 1250 square feet vide details given below:

Sl	Description	Sq. feet
1	Processing area	500
2	Raw material store	100
3	Oil store room and salt store room	150
4	Finished goods store room	100
5	Office space	100
6	Toilet space	100
7	Quality control laboratory	100
8	Miscellaneous store room	100
9	**Total**	**1250**

Lease rent – Rs. 8.00 per square foot; Total rent per month – Rs. 10000

Lease advance – Rs. 50000

11. *Costing of machinery and equipment*

Sl	Description	Rs. lakhs
1	Potato washing and peeling machine	1.200
2	Slicing machine	0.650
3	Dewatering machine	0.350
4	Batch fryer – 2 nos	1.000
5	Spice coating machine	1.250
6	Sealing machine with inert gas flushing unit – 3 nos	1.510
7	Stainless steel working tools	0.100
8	Weighing scales, dispensers and fillers	0.250
9	Plastic trays – 50 nos	0.200
10	**Total**	**6.510**
11	Laboratory equipment	0.500
12	**Grand total machinery and equipment**	**7.010**

12. *Project cost*

Sl	Description	Rs. lakhs
1	Land	On lease
2	Civil works	On lease
3	Plant machinery	6.510
4	Laboratory equipment	0.500
5	Transport vehicle (Tata Ace)	3.760
6	Pollution control equipment	0.000
7	Energy conservation equipment	0.000
8	Cost of power connection	0.350
9	Cost of electrification	1.000
10	Erection and commissioning	0.650
11	Cost of machinery spares	0.200
12	Cost of office equipment	1.000
13	Deposits if any	0.250
14	Company formation expenses	0.100
15	Gestation period expenses	0.500
16	Sales tax registration expenses	0.100
17	Initial advertisement and publicity	10.000
18	Contingencies	0.150
19	Working capital margin money	1.144
20	**Total**	**26.214**

13. *Working capital requirements per month*

a. *Salaries and wages*

Sl	Description	No of persons	Total salary / month (Rs. lakhs)
1	Production Supervisor (female)	1	0.150
2	Chemist (female)	1	0.100
3	Skilled workers (female)	1	0.060
4	Unskilled workers (female)	2	0.060
5	Packing workers (female)	2	0.060
6	Administrative staff	1	0.100
7	Driver	1	0.060
8	**Total**	**9**	**0.590**

b. *Raw material requirement per month*

Sl	Description	Qty (kgs)	Rate / kg (Rs)	Value (Rs. lakhs)
1	Potatoes	6688	10.00	0.669
2	Oil	206	80	0.165
3	Salt and spices, preservatives etc	24	30.00	0.007
4	**Total raw material**	**6918**		**0.841**

c. *Packaging material requirement per month*

Sl	Description	Qty	Rate / unit Rs)	Value (Rs. lakhs)
1	Primary packaging material – metallized polyester – poly pouches	25000 nos	1.750	0.437
2	Cartons and straps	625 nos	40.00	0.250
3	**Total**			**0.687**

Total raw + packaging material = Rs. 1.528 lakhs

d. Utilities per month

Sl	Description	Rs. lakhs
1	Power 2000 kwh @ Rs. 5.50 per unit	0.110
2	Water	0.020
3	Boiler fuel	0.000
4	**Total utilities**	**0.130**

e. Contingent expenses per month

Sl	Description	Rs. lakhs
1	Rent for processing shed	0.100
2	Postage and stationery	0.010
3	Telephones, fax etc.	0.050
4	Consumable stores	0.020
5	Repairs and maintenance	0.047
6	Local transports, loading and unloading	0.100
7	Advertisement and publicity	0.000
8	Insurance	0.005
9	Sales expenses @ 1% of sales	0.035
10	Miscellaneous expenses @ 1% of sales	0.035
11	Trade incentives @ 2% of sales	0.070
12	Taxes @ 4%	0.140
13	**Total contingent expenses**	**0.612**

f. Total working capital requirement per month

Sl	Description	Rs. lakhs
1	Salaries and wages	0.590
2	Raw material and packaging material	1.528
3	Utilities	0.130
4	Contingent expenses	0.612
5	**Total**	**2.860**

14. Means of finance

Sl	Description	Rs. lakhs
1	Total Project Cost	26.214
2	Equity	8.650
3	Debt	17.564

4	Working capital margin money	1.144

15. Financial analysis

Sl	Description	Rs. lakhs
1	Total recurring cost per year	34.320
2	Depreciation on land and building	0.000
3	Depreciation on machinery and vehicle	1.076
4	Depreciation on furnaces	0.000
5	Depreciation on moulds and fixtures	0.020
6	Depreciation on office equipment	0.100
7	Interest on long term loan @ 13.5%	2.371
8	Interest on short term borrowings@ 13.5%	0.232
9	**Total cost of production**	**38.119**

16. Turnover per year

Sl	Item	Qty	Rate/unit (Rs)	Total Rs. lakhs
1	**Potato chips**	**14000 kgs**	**300**	**42.00**

17. Viability analysis

Sl	Description	Value
1	Net profit before income tax (Rs. lakhs)	3.881
2	Net profit ratio	9.2%
3	Internal rate of return	23.2%
4	Break even percentage	52%
5	Debt service coverage ratio	1.987

List of machinery suppliers for potato chips

1. S.D. Engineering Private Limited, E-53, Sector -7, NOIDA 201301, Uttar Pradesh; Tel: 0118 - 24552273; Fax: 0118 - 24529703
2. M. Son Industries, D - 33, Sector - 2, Noida 201301, District Ghaziabad, Uttar Pradesh.
3. Reliance Engineering Works, 4065 Sector 46-D, Chandigarh 160047.; Tel: 0172 - 2605682; Fax: 0172 - 2652781
4. R.M.Engineering Works, Gala no. 3, L.D'Souza Compound, Mohamadi Jama Masjid Lane, Kherani Road, Saki Naka, Mumbai. 400072.; Tel: 022 – 25783484
5. Hari Om Industries; Dhebar Road South, Atika Industrial Area, Street No. 3, Near Jaydev Foundry, Rajkot 360002, Gujarat.; Tel: 0281 - 2363620; Fax: 0281 - 2371745.
6. Geeta Food Engineering, Plot No. C - 7 / 1, TTC Industrial Area, Pawana MIDC, Thane - Belapur Road, Behind Savita Chemicals, Navi Mumbai 400705. Maharashtra.; Tel: 022 - 56101973; Fax: 022 – 55906450
7. Agaram Industries, 126, Nelson Road, Aminjikarai, Chennai, 600029, ; Tel: 044-23741413; Fax: 044-23741529
8. Royal Scientific Industries, T.S.74A, SIDCO Industrial Estate, Ekkatuthangal, Chennai. 600097., Tel: 044-22254749
9. Heat and Control (S) Pvt. Ltd.,E-2, 3rd Avenue, Anna Nagar, East, Chennai. 600102., Tel: 044-26212943