

Mini sanitary napkin unit consists of three machines

### 1) De-fiberation machine

Wood pulp which is commercially available in sheet form can be de-fiberated on this low cost machine. The carbon alloy steel blade in this machine that runs at 10000 rpm that de-fiberates the wood pulp to a required filament length of 1-1.5mm, instead of grinding. The capacity of the de-fiberation machine is 150 gms/min that yields to a volume of 1 cubic feet of de-fibered soft pulp. The machine runs on 1 Hp single phase motor. The size of the machine is 36"x24"x30"

### 2) Core Forming machine

The purpose of the machine is to compress the de-fibered pulp into a required shape of the soft core of the napkin. It is a manual machine that does not utilise even a single unit of power. The machine size is 24"x24"x30"

### 3) Napkin finishing machine

Formed wood pulp cores on the core forming machine are then wrapped by a non woven fabric and is sealed by sensitive impulse sealing method. The power requirement is 40 volts. The machine speed is 4-10 napkins/min. Nichrome alloy filament is used in the construction of the sealing pads. The machine size is 36"x30"x30"

### Tangible benefits

Hygiene improvement among rural women, economic development on rural women by providing direct and indirect employment to millions of rural women. The average income of women become Rs.2000-3500 per month. Most women use cloth during their menstruation days. This is because price is the biggest entry barrier. A pack of 10 sanitary napkins would cost Rs.30-40. Therefore, the average spending during the menstruation days would be around Rs.48, which is expensive by Indian standards. Most Indian women fashion up pads out of cotton cloth as a home made and inexpensive solution to the hygiene and comfort needs during periods. These home made cloth pads are washed and reused. They lack the absorbing and liquid retention capacity of sanitary napkin and hence may lack in hygiene and comfort. Studies reveal that the practice of using cloth during periods associated with very high risk of cervical cancer. There are chances that 98 out of 100 people will develop this type of cancer and if controlled, spread to other parts of the body. Lack finance is the reason why the rural women opt for this mode of tackling those 4-5 days, even adolescent girls got affected by this unhygienic practice. The reason is that even that they know about the sanitary napkin the cost of the napkins manufactured by multinationals was not affordable. In this situation with this mini sanitary napkin unit, napkins can be manufactured on this low cost unit are easily saleable in rural areas. These will be a boon for women self help groups and women entrepreneurs in rural and urban areas also.

### "Don't use ordinary salts use iodised salt"

The women entrepreneurs will be able to educate the rural women not to use cloth but instead use sanitary napkin. The low cost machine napkin units create employment for rural women. The napkins produced by these units are low in cost so affordable by rural, semi urban and even urban poor. The napkins produced and sold by rural women are the unit run by women entrepreneurs, irrespective of area. They would be able to interact with local women. They can also teach the napkin usages and advantages. By this way they would be able to switch over from unhygienic cotton- cloth method to hygienic sanitary napkin. Thus for rural India, the social impact will be

- 1) The affordable cost of the sanitary pads replaces the use of unhygienic cloths during menstruation periods by the rural and urban economically poor women.

## 2) Economic development by providing direct and indirect employment to a lot of poor women

New invention napkin does not affect any environment. Usually napkins produced by corporate never bother about the disposal. But the new invention low cost napkin producers can teach the rural women on disposal methods as only wood pulp is being employed which has a distinctive property of being bio degradable.

Every new invention sanitary napkin making units produce 4000 packets of napkin consists of 8 napkins each for a single shift of eight hours everyday.

**Manufacturing process in detail**

Firstly de-fiberation of wood pulp is done on the de-fiberation machine. Secondly the de-fibered wood pulp is measured on a weighing scale. Thirdly the wood pulp is filled on a core block and pressed by core forming machine. After this, pressed cores are wrapped by non-woven fabric and sealed by using napkin finishing machine (sealing machine). Then position sticker is pressed is pasted on the napkin and then packed.

Intensive training to manufacture napkins is given on field.

**FINANCIAL ASPECTS.****Non-Recurring expenditure****1.Land and building****Here it will be started in a rental building . Required space is**

16 Feet X 16 Feet-one room. The monthly rent is fixed at Rs.750.

**2.Machineries**

Sl.no	Name of machinery	Nos	Value(Rs)
1	De-Fiberation machine for grind wood pulp	1	19500
2	Core Molding Machine-To form Napkin core with De-fibered Wood pulp	1	5500
3	Soft touch sealing Machine (with working Table) to finish formed wood pulp cores into Napkins	1	28000
4	Napkin core dies	5	3125
5	UV treat Unit	1	10400
6	Installation of machineries and training fee		3000
<b>Total</b>			<b>69525</b>

Vat Tax 12.5% Rs.8315 additional on the above prices

**3)Other accessories**

Sl.no	items	Nos	Value(Rs)
1	Weighing scale(To weigh wood pulp)	1	1000



2	Work Table	2	2000
3	Plastic buckets and Trays	5	500
<b>Total</b>			<b>3500</b>

**4)Required Workers**

Sl.No	Workers	Nos	Salary (Rs)
1	Semi Skilled Labours(daily wages Rs.70 per day)	4 workers	7000

**5)Monthly Administrative Expenses**

Sl.no	Expenses	Amount
1	Rent	750
2	Electricity bill	500
3	General Administrative expenses	1000
<b>Total Rs.</b>		<b>2250</b>

**6)Required Raw material per month**

Sl.no	Raw material	unit	Value( Rs)
1	Wood pulp	362.5 Kgs	18488
2	Top layer	6500 mts	9620
3	Back layer	4200grams	924
4	Release paper	375 sheets	188
5	Gum	25 Kg	3375
6	Packing covers	4500 nos	3375
<b>Total Rs.</b>			<b>35970</b>

**Working capital required**

Raw materials for 35 days Rs.53955

One month wages Rs. 7000

One month Administrative expenses Rs.2250

Total Rs.63205 say total Rs.63000

**7) Required Electricity**

1HP Motor (single Phase)- single phase current 220 volt .its amount has been included in the administrative heads.

**8.Total Investment**

Fixed capital Rs.81340

Working capital Rs.63000

-----  
Total Rs.144340**9)Source of Funds**

Own contribution (10% of total project cost) Rs.14434

Fixed capital loan Rs.73206

Working capital Loan Rs.56700

-----  
Total Rs.144340**Price Fixing per napkin**

Sl.no	Description	value
1	Raw material per napkin packet	10.92
3	Cost per napkin packet	10.92
4	Add our marine	2.08
	Total price for a napkin packet contain 8 pads	13.00

**10.Sales per annum**

Per day production 1440 napkins

8 napkins per packets i.e. 180 packets per day

Hence the unit manufactures 54000 packets per annum.

Total sales revenue from the sale of 54000 packets @Rs.13 per packet

= Rs.702000

**Cost of production per annum**

Raw-materials	Rs.431640
Wages and salaries	Rs.84000
Administrative expenses	Rs.27000
Depreciation on fixed assets	Rs.8134
Insurance	Rs.813
Repairs and renewals	Rs.4067
Interest on capital	Rs.18186
Selling expenses (2.3)	Rs.16200

Total Rs.590040

**Net profit**

Total sales- cost of production

Rs.702000-590040 = Rs.111960

=15%

**Rate of Return on Investment**

$$\frac{\text{Profit}}{\text{Investment}} \times 100$$

= 77%

**Break Even point**

Rent	:	9000
40% of salary	:	33600
40% of other expenses		7200
Interest on capital		10249
Depreciation		8134
Insurance		813
		=====
		68996

Fixed expenses x100

Fixed expenses + profit

=  $\frac{68996 \times 100}{180956}$

180956

= 38%

**Repayment of Term loan ( in 1000s)**

year	Opening balance	Repayment	Balance	interest
1 st	73	14.6	58.4	10
2nd	58.4	14.6	43.8	8
3	43.8	14.6	29.2	6
4	29.2	14.6	14.6	4
5	14.6	14.6	nil	2

For Napkin Manufacturing Machineries and Raw materials  
 Jayashree industries  
 SF NO.577 KNG Pudur Road  
 Somayampalayam po  
 Coimbatore-641108, Mobile- 9283155128, 9442224069  
 Web site [www.newinventions.in](http://www.newinventions.in)