



MODEL PROJECT REPORT



PROJECT REPORT ON AIR POLLUTION MASK

SWAVALAMBI BHARAT ABHIYAN

ANTI-POLLUTION MASK

Introduction

Anti-Pollution Mask is also known as air pollution mask & Dust Mask. A dust mask is a flexible pad held over the nose and mouth by elastic or rubber straps to protect against dusts encountered during construction or cleaning activities, such as dusts from drywall, brick, wood, fiberglass, silica (from ceramic or glass production), or sweeping. Mask can also be worn to protect against allergens. A dust mask is worn in the same fashion as a paint mask or surgical mask, but it is dangerous to confuse the three because they each protect against specific airborne dangers. Using the wrong mask for a job can present a significant and possibly deadly danger as many dust masks with widely varied levels of protection may look similar and even masks that do not protect against dust at all, such as paint masks and surgical masks. A correct fit may not be as critical in masks that are intended to protect against splattering liquids or mists. Dust masks are manufactured to protect against only certain dangers, and do not protect against chemicals such as vapours and mists. For this reason, it is dangerous to confuse dust masks with paint masks.

The most commonly used equipment to combat air pollution is an anti-pollution mask.

Health benefits of Anti-Pollution Mask

Air pollution consists of a variety of harmful airborne particulates like soot, smoke, gases, chemical vapour and residue. The main sources are vehicle emissions and industrial processes. The purpose of an anti-pollution mask is to filter out harmful particulates in the ambient air. Following multiple tests, it seems that tightness of fit is crucial. Facial hair prevents a good seal and the fit also depends on the shape of the wearer's face. wearers is to wear a mask for short periods and only when you feel it is essential.

Wearing face masks had lower blood pressure and better regulated heart rates & using face masks can reduce the spread of disease.

Description of Anti-Pollution Mask Machine

Machinery for Anti-Pollution Mask includes the following:

- Sewing Machine
- Other equipment's
- Desktop for designing

These Machines are used to manufacture Anti-Pollution mask from different types of raw material. With the help of this machine the work of cutting, stitching, formulation & packaging completes in a very short span.

Anti-pollution Mask Market Analysis

The market for anti-pollution masks in India is likely to increase to USD 16.86 million (about Rs 118 crore) by 2023 due to deteriorating air quality and rapid urbanisation, a report by industry body Assocham, "India anti-pollution masks market may generate revenue of USD 16.86 million by end of 2023 from USD 6.16 million (about Rs 43 crore) in 2017," it said.

Besides, increasing per capita expenditure on healthcare and rising awareness are anticipated to fuel demand for pollution masks in India in the coming years.

Masks are filters that prevent fine particles from entering the nasal passage and then the lungs. The finer the particles that a mask filters, the more dense are the texture of the mask, it said.

Machinery & Equipment's required:

Category	Name	Description	QTY	Rate	Amount
Sewing Machine	Flat Lock		2	50,000.00	100,000.00
	Four Thread Overlock		1	40,000.00	40,000.00
	Cutting Machine		1	20,000.00	20,000.00
	Juki Sewing		15	12,000.00	180,000.00
	Packet Patti Cutter		1	13,000.00	13,000.00
Warehouse+Factory	Racks	Slotted angle Racks 9 level with each level 200kg udl	40	2,500.00	100,000.00
	Printer	HP Color Laser Jet Pro M181FW	1	50,699.00	50,699.00
	Scanner	iBall WBS-650MV	4	2,899.00	11,596.00
	Thermal printer	Brother P-touch EDGE PT-P750WVP	2	20,790.00	41,580.00
	Laptop	Dell inspiron 3480	4	38,550.00	154,200.00
	Desktop	Assenbled	1	25,000.00	25,000.00
	Power backup 4 KW	luminous	1	31,000.00	31,000.00
	Generator	Power generator	1	75,000.00	75,000.00
	Permiability check		1	178,000.00	178,000.00
	Stiffness check		1	14,500.00	14,500.00
	Filteration check		1	100,000.00	100,000.00
Office	Infra	Furniture /Decoreation	1	150,000.00	150,000.00
	Office work	Laptop	1	45,000.00	45,000.00
	Air Conditioner	AC	1	40,000.00	40,000.00
Designing	Desktop	i7 , 16gb ram , 1tb HD	2	65,000.00	130,000.00
Total					14,99,575

Land & Building required:

Land required 1800 Square Feet (approx.)

Approximate rent for the same is Rs. 30000 (Approx.)

Labour Requirement:

45 Manpower are required for the Anti-Pollution Mask.

Includes:

30 skilled

5 unskilled

Types of products to be manufactured

2 types of Anti-pollution mask is to be manufactured.

1. O1 type
2. O2 type

Raw Material Requirement of Anti-Pollution Mask

- ❖ Dry Fit Layer
- ❖ Elastic
- ❖ Filter Layer for o1
- ❖ Front fabric
- ❖ Label
- ❖ Net Layer
- ❖ PU clip
- ❖ PU Stopper
- ❖ Ribbon Pipin
- ❖ Thread

Average raw material cost per mask of O1 : Rs. 14.05

Average raw material cost per mask of O2 : Rs. 19.00

Anti-Pollution Mask Licenses & registration

For Properitor:

- Obtain the GST registration.
- Additionally, obtain the udyog Aadhar Number.
- Fire/ Pollution Registration as required.

- Choice of a Brand Name of the product and secure the name with Trademark if required.

Implementation Schedule

S.N.	Activity	Time Required (in Months)
1	Acquisition Of premises	1
2	Construction (if Applicable)	1- 2 Months
3	Procurement & installation of Plant & Machinery	1
4	Arrangement of Finance	1
5	Requirement of required Manpower	1
	Total time Required (some activities shall run concurrently)	2-3Months

Conclusion:

After completion of manufacturing process, product is ready to sell in the market. This machine can be installed with low investment & one can earn a good Margin of profit by doing this business.

PROJECT AT A GLANCE

1	Name of the Properitor Constitution (legal Status)	xx		
2	:	xx		
3	Product and By Product	Anti pollution Mask		
4	Name of the project / business activity proposed :	Anti pollution Mask		
5	Cost of Project		Rs.	25.00
	working capital		Rs.	10.00
	capital expenditure		Rs.	15.00
6	Means of Finance			
	Term Loan		Rs.	12.50 Lacs
	Own Capital		Rs.	2.50 Lacs
7	Pay Back Period	5 years		
8	Project Implementation Period	6 months		
9	Employment	45 10KW		
10	Power Requirement	connection elastic, dry sheet, fabric, thread		
11	Major Raw materials			
12	Estimated Annual Sales Turnover			
13	Detailed Cost of Project & Means of Finance			

COST OF PROJECT

(Rs. In Lacs)

Particulars	Amount
Land	
Building & Civil Work	
Plant & Machinery	15.00
Furniture & Fixtures	
Pre-operative Expenses	
Contingencies	
Working Capital Requirement	10.00
Total	25.00

MEANS OF FINANCE

Particulars	Amount
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Own Contribution	1.25
Bank Finance	13.75
working capital from bank	10.00
Total	25.00

COMPUTATION OF PRODUCTION OF Anti-Pollution Mask

Items to be Manufactured	
O1,	
O2 mask	
per machine capacity per day	300 Mask
Total machines	15
machine capacity per annum	900000 Mask

Production of O1 Mask-60%		
Production	Capacity	Mask
1st year	50%	270,000
2nd year	53%	286,200
3rd year	55%	297,000
4th year	58%	313,200
5th year	60%	324,000

Production of O2 Mask-40%		
Production	Capacity	Mask
1st year	50%	180,000
2nd year	53%	190,800
3rd year	55%	198,000
4th year	58%	208,800
5th year	60%	216,000

Raw Material Cost -O1 mask			
Year	Capacity	per mask	Amount
	Utilisation		(Rs. in lacs)
1st year	50%	15.00	40.50
2nd year	53%	15.50	44.36
3rd year	55%	16.00	47.52
4th year	58%	16.50	51.68
5th year	60%	17.00	55.08

Raw Material Cost O2 Mask			
Year	Capacity	per mask	Amount
	Utilisation		(Rs. in lacs)
1st year	50%	19.00	34.20
2nd year	53%	19.50	37.21
3rd year	55%	20.00	39.60
4th year	58%	20.50	42.80
5th year	60%	21.00	45.36

COMPUTATION OF SALE - O1 Mask

Particulars	1st year	2nd year	3rd year	4th year	5th year
Op Stock	-	27,000	28,620	29,700	31,320
Production	270,000	286,200	297,000	313,200	324,000
Less : Closing Stock	27,000	28,620	29,700	31,320	32,400
Net Sale	243,000	284,580	295,920	311,580	322,920
sale price per piece	30.00	30.50	31.00	31.50	32.00
Sales (in Lacs)	72.90	86.80	91.74	98.15	103.33

COMPUTATION OF SALE -O2 mask

Particulars	1st year	2nd year	3rd year	4th year	5th year
Op Stock	-	18,000	19,080	19,800	20,880
Production	180,000	190,800	198,000	208,800	216,000
Less : Closing Stock	18,000	19,080	19,800	20,880	21,600
Net Sale	162,000	189,720	197,280	207,720	215,280
sale price per piece	49.00	49.50	50.00	50.50	60.00
Sales (in Lacs)	79.38	93.91	98.64	104.90	129.17

<u>BREAK UP OF LABOUR CHARGES</u>			
Particulars	Wages	No of	Total
	Per Month	Employees	Salary
Skilled	12000	30	360000
Unskilled	10000	5	50000
Total Salary Per Month			410000
Total Annual Labour Charges	(in Lacs)		49.20

<u>BREAK UP OF STAFF Charges</u>			
Particulars	Wages	No of	Total
	Per Month	Employees	Salary
supervisor	15000	2	30000
Accountant	15000	1	15000
sales team	12000	3	36000
helper	8000	4	32000
Total Salary Per Month			113000
Total Annual Labour Charges	(in Lacs)		13.56

<u>Utility Charges at 100% capacity (per month)</u>		
Particulars	value	Description
Power connection required	10	KWH
consumption per day	100	units
Consumption per month	2000	units
Rate per Unit	7	Rs.
power Bill per month	14000	Rs.

PROJECTED PROFITABILITY STATEMENT					
	-	-	-		
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Capacity Utilisation %	50%	53%	55%	58%	60%
<u>SALES</u>					
Gross Sale					
O1 Mask	72.90	86.80	91.74	98.15	103.33
O2 Mask	79.38	93.91	98.64	104.90	129.17
Total	152.28	180.71	190.38	203.05	232.50
<u>COST OF SALES</u>					
Raw Mateiral Consumed	74.70	81.57	87.12	94.48	100.44
Elecricity Expenses	1.68	1.85	2.03	2.24	2.57
Depriciation	2.25	1.91	1.63	1.38	1.17
Consumables	4.74	5.64	5.96	6.38	8.27
Repair & maintennace	3.06	3.65	3.85	4.12	6.20
other direct expenses	2.92	3.47	2.75	2.94	6.20
Labour	49.20	54.12	56.83	59.67	68.62
Cost of Production	138.55	152.21	160.17	171.21	193.47
Add: Opening Stock /WIP	-	13.85	15.22	16.02	17.12
Less: Closing Stock /WIP	13.85	15.22	16.02	17.12	19.35
Cost of Sales	124.69	150.84	159.38	170.11	191.24
GROSS PROFIT	27.59	29.87	31.00	32.94	41.26
salary to staff	13.56	14.92	15.66	16.44	18.91
Interest on Term Loan	1.23	1.08	0.78	0.47	0.14
Interest on working Capital	1.20	1.20	1.20	1.20	1.20
Selling & adm Exp	2.19	2.60	2.75	2.94	7.23
rent	3.60	3.96	4.36	4.79	5.27

TOTAL	21.78	23.76	24.75	25.85	32.76
NET PROFIT	5.81	6.10	6.25	7.08	8.50
Taxation	0.17	0.23	0.26	0.43	0.73
PROFIT (After Tax)	5.64	5.88	5.99	6.65	7.77

PROJECTED BALANCE SHEET					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Liabilities</u>					
Capital					
opening balance		6.14	9.52	12.01	14.16
Add:- Own Capital	2.50				
Add:- Retained Profit	5.64	5.88	5.99	6.65	7.77
Less:- Drawings	2.00	2.50	3.50	4.50	4.60
Closing Blance	6.14	9.52	12.01	14.16	17.33
Term Loan	11.11	8.34	5.57	2.80	-
Working Capital Limit	10.00	10.00	10.00	10.00	10.00
Sundry Creditors	6.23	6.80	7.26	7.87	8.37
Provisions & Other Liab	0.70	0.90	1.00	1.50	1.88
TOTAL :	34.18	35.56	35.84	36.33	37.58
<u>Assets</u>					
Fixed Assets (Gross)	15.00	15.00	15.00	15.00	15.00
Gross Dep.	2.25	4.16	5.79	7.17	8.34
Net Fixed Assets	12.75	10.84	9.21	7.83	6.66
Current Assets					
Sundry Debtors	3.17	6.02	7.14	7.61	8.72
Stock in Hand	15.35	16.85	17.76	19.01	21.36
Cash and Bank	2.91	1.84	1.73	1.88	0.85
TOTAL :	34.18	35.56	35.84	36.33	37.58

PROJECTED CASH FLOW STATEMENT

PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>SOURCES OF FUND</u>					
Own Margin	2.50				
Net Profit	5.81	6.10	6.25	7.08	8.50
Depreciation & Exp. W/off	2.25	1.91	1.63	1.38	1.17
Increase in Cash Credit	10.00	-	-	-	-
Increase In Term Loan	12.50	-	-	-	-
Increase in Creditors	6.23	0.57	0.46	0.61	0.50
Increase in Provisions & Oth lib	0.70	0.20	0.10	0.50	0.38
TOTAL :	39.99	8.79	8.44	9.58	10.55
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	15.00				
Increase in Stock	15.35	1.50	0.91	1.25	2.34
Increase in Debtors	3.17	2.85	1.12	0.48	1.10
Repayment of Term Loan	1.39	2.77	2.77	2.77	2.80
Drawings	2.00	2.50	3.50	4.50	4.60
Taxation	0.17	0.23	0.26	0.43	0.73
TOTAL :	37.08	9.86	8.56	9.43	11.58
Opening Cash & Bank Balance	-	2.91	1.84	1.73	1.88
Add : Surplus	2.91 -	1.07 -	0.12	0.15 -	1.03
Closing Cash & Bank Balance	2.91	1.84	1.73	1.88	0.85

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Finished Goods</u>					
	13.85	15.22	16.02	17.12	19.35
<u>Raw Material</u>					
	1.49	1.63	1.74	1.89	2.01
Closing Stock	15.35	16.85	17.76	19.01	21.36

COMPUTATION OF WORKING CAPITAL REQUIREMENT					
TRADITIONAL METHOD					
Particulars	Amount	Own Margin		Bank Finance	
Finished Goods & Raw Material	15.35				
Less : Creditors	6.23				
Paid stock	9.12	10%	0.91	90%	8.21
Sundry Debtors	3.17	10%	0.32	90%	2.86
	12.30		1.23		11.07
WORKING CAPITAL LIMIT DEMAND (from Bank)					
				10.00	

2nd Method		
PARTICULARS	1st year	2nd year
Total Current Assets	21.43	24.72
Other Current Liabilities	6.93	7.70
Working Capital Gap	14.51	17.02
Min Working Capital		
25% of WCG	3.63	4.26
Actual NWC	4.51	7.02
Item III - IV	10.88	12.77
Item III - V	10.00	10.00
MPBF (Lower of VI & VII)	10.00	10.00

3rd Method		
PARTICULARS	1st year	2nd year
Total Current Assets	21.43	24.72
Other Current Liabilities	6.93	7.70
Working Capital Gap	14.51	17.02
Min Working Capital		
25% of Current Assets	5.36	6.18
Actual NWC	4.51	7.02
Item III - IV	9.15	10.84
Item III - V	10.00	10.00
MPBF (Lower of VI & VII)	10.00	10.00

COMPUTATION OF DEPRECIATION

Description	Plant & Machinery	TOTAL
Rate of Depreciation	15.00%	
Opening Balance	-	-
Addition	15.00	15.00
Total	15.00	15.00
Less : Depreciation	2.25	2.25
WDV at end of Year	12.75	12.75
Additions During The Year	-	-
Total	12.75	12.75
Less : Depreciation	1.91	1.91
WDV at end of Year	10.84	10.84
Additions During The Year	-	-
Total	10.84	10.84
Less : Depreciation	1.63	1.63
WDV at end of Year	9.21	9.21
Additions During The Year	-	-
Total	9.21	9.21
Less : Depreciation	1.38	1.38
WDV at end of Year	7.83	7.83
Additions During The Year	-	-
Total	7.83	7.83
Less : Depreciation	1.17	1.17
WDV at end of Year	6.66	6.66
Additions During The Year	-	-
Total	6.66	6.66

Less : Depreciation	1.00	1.00
WDV at end of Year	5.66	5.66
Less : Depreciation	0.85	0.85
WDV at end of Year	4.81	4.81
Less : Depreciation	0.72	0.72
WDV at end of Year	4.09	4.09

CALCULATION OF D.S.C.R

PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
CASH ACCRUALS	7.89	7.79	7.62	8.03	8.95
Interest on Term Loan	1.23	1.08	0.78	0.47	0.14
Total	9.12	8.87	8.39	8.50	9.09
<u>REPAYMENT</u>					
Instalment of Term Loan	1.39	2.77	2.77	2.77	2.80
Interest on Term Loan	1.23	1.08	0.78	0.47	0.14
Total	2.61	3.85	3.55	3.24	2.94
DEBT SERVICE COVERAGE RATIO	3.49	2.30	2.36	2.62	3.09
AVERAGE D.S.C.R.	2.77				

REPAYMENT SCHEDULE OF TERM LOAN							
						Interest	11.00%
Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance
1st	Opening Balance						
	1st month	-	12.50	12.50	-	-	12.50
	2nd month	12.50	-	12.50	0.11	-	12.50
	3rd month	12.50	-	12.50	0.11	-	12.50
	4th month	12.50	-	12.50	0.11		12.50
	5th month	12.50	-	12.50	0.11		12.50
	6th month	12.50	-	12.50	0.11		12.50
	7th month	12.50	-	12.50	0.11	0.231	12.27
	8th month	12.27	-	12.27	0.11	0.231	12.04
	9th month	12.04	-	12.04	0.11	0.231	11.81
	10th month	11.81	-	11.81	0.11	0.231	11.58
	11th month	11.58	-	11.58	0.11	0.231	11.35
	12th month	11.35	-	11.35	0.10	0.231	11.11
					1.23	1.386	
2nd	Opening Balance						
	1st month	11.11	-	11.11	0.10	0.231	10.88
	2nd month	10.88	-	10.88	0.10	0.231	10.65
	3rd month	10.65	-	10.65	0.10	0.231	10.42
	4th month	10.42	-	10.42	0.10	0.231	10.19
	5th month	10.19	-	10.19	0.09	0.231	9.96
	6th month	9.96	-	9.96	0.09	0.231	9.73
	7th month	9.73	-	9.73	0.09	0.231	9.50
	8th month	9.50	-	9.50	0.09	0.231	9.27
	9th month	9.27	-	9.27	0.08	0.231	9.04
	10th month	9.04	-	9.04	0.08	0.231	8.80
	11th month	8.80	-	8.80	0.08	0.231	8.57
	12th month	8.57	-	8.57	0.08	0.231	8.34

				1.08	2.772	
3rd	Opening Balance					
	1st month	8.34	-	8.34	0.08	0.231 8.11
	2nd month	8.11	-	8.11	0.07	0.231 7.88
	3rd month	7.88	-	7.88	0.07	0.231 7.65
	4th month	7.65	-	7.65	0.07	0.231 7.42
	5th month	7.42	-	7.42	0.07	0.231 7.19
	6th month	7.19	-	7.19	0.07	0.231 6.96
	7th month	6.96	-	6.96	0.06	0.231 6.73
	8th month	6.73	-	6.73	0.06	0.231 6.49
	9th month	6.49	-	6.49	0.06	0.231 6.26
	10th month	6.26	-	6.26	0.06	0.231 6.03
	11th month	6.03	-	6.03	0.06	0.231 5.80
	12th month	5.80	-	5.80	0.05	0.231 5.57
				0.78	2.772	
4th	Opening Balance					
	1st month	5.57	-	5.57	0.05	0.231 5.34
	2nd month	5.34	-	5.34	0.05	0.231 5.11
	3rd month	5.11	-	5.11	0.05	0.231 4.88
	4th month	4.88	-	4.88	0.04	0.231 4.65
	5th month	4.65	-	4.65	0.04	0.231 4.42
	6th month	4.42	-	4.42	0.04	0.231 4.18
	7th month	4.18	-	4.18	0.04	0.231 3.95
	8th month	3.95	-	3.95	0.04	0.231 3.72
	9th month	3.72	-	3.72	0.03	0.231 3.49
	10th month	3.49	-	3.49	0.03	0.231 3.26
	11th month	3.26	-	3.26	0.03	0.231 3.03
	12th month(Subsidy adjusted)	3.03	-	3.03	0.03	0.231 2.80
				0.47	2.772	
5th	Opening Balance					
	1st month	2.80	-	2.80	0.03	0.231 2.57

2nd month	2.57	-	2.57	0.02	0.231	2.34
3rd month	2.34	-	2.34	0.02	0.231	2.11
4th month	2.11	-	2.11	0.02	0.231	1.87
5th month	1.87	-	1.87	0.02	0.231	1.64
6th month	1.64	-	1.64	0.02	0.231	1.41
7th month	1.41	-	1.41	0.01	0.231	1.18
8th month	1.18	-	1.18	0.01	0.231	0.95
9th month	0.95	-	0.95	0.01	0.231	0.72
10th month	0.72	-	0.72	0.01	0.231	0.49
11th month	0.49	-	0.49	0.00	0.231	0.26
12th month	0.26	-	0.26	0.00	0.257	-
0.14					2.80	
DOOR TO DOOR 60 MONTHS						
MORATORIUM PERIOD 6 MONTHS						
REPAYMENT PERIOD 54 MONTHS						