

PROJECT REPORT

Of

SPIROMETER

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Spirometer Manufacturing unit.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]



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PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : xxxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx
- Pin: xxxxxxxx State: xxxxx
- Mobile xxxxxxxx
- 5 Product and By Product : **SPIROMETER**
- 6 Name of the project / business activity proposed : **SPIROMETER MANUFACTURING UNIT**
- 7 Cost of Project : Rs.24 Lakhs
- 8 Means of Finance
- Term Loan Rs.17.78 Lakhs
- Own Capital Rs.2.4 Lakhs
- Working Capital Rs.3.82 Lakhs
- 9 Debt Service Coverage Ratio : 2.38
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 30%
- 13 Employment : 10 Persons
- 14 Power Requirement : 25.00 KWH
- 15 Major Raw materials :
Medical grade Thermoplastic, Mouth piece, 12 mm OD Pneumatic Air Line connector, EVA corrugated medical breathing tubes, Polyethylene colorful balls weighing in the range of 1 – 6 g
- 16 Estimated Annual Sales Turnover (Max Capacity) : 109.21 Lakhs
- 17 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Plant & Machinery	18.75
Furniture & Fixtures	1.00
Working Capital	4.25
Total	24.00

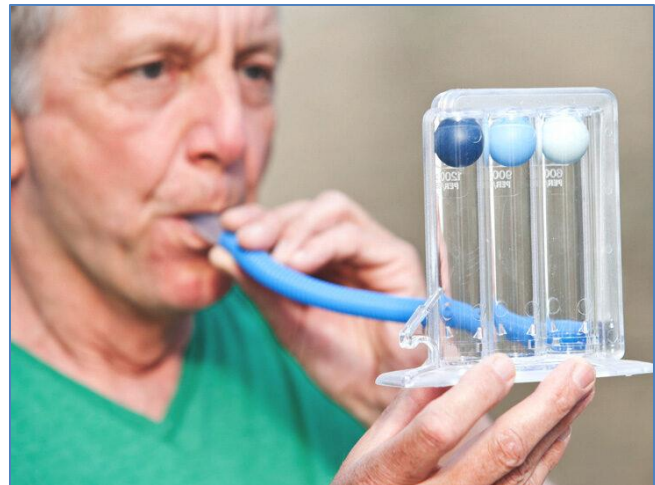
MEANS OF FINANCE

Particulars	Amount
Own Contribution	2.40
Working Capital(Finance)	3.82
Term Loan	17.78
Total	24.00

SPIROMETER MANUFACTURING UNIT

Introduction:

The Incentive Spirometer (Lung Exerciser) is an innovative system that allows you to exercise respiration through stimulation/ inspiration. This is a handheld device that is helpful to improve and maintain the respiratory fitness. It is useful in maintaining and restoring lungs capacity of post-operative ambulatory and COPD patients. It has an attractive design with color-coded balls for easy identification of 1200cc, 900cc & 600cc breathing capacity to provide more efficient exercise to patient at a step up basis. Innovative design, can be dismantled into parts for cleaning & disinfection.



Uses & Market Potential:

The Spirometer market was projected at USD 799.5 Million in 2019 and it is expected to expand at a CAGR of 9.7 % from 2020 to 2027. An increase in the prevalence of the Chronic Respiratory Diseases, growing preference for home healthcare, and different technological advancements are expected to drive the market. Around 2.0 billion people, worldwide, are exposed to Air pollution regularly, both indoor and outdoor, and the pollutants and irritants have severe adverse effects on the lungs. To simplify the complex procedures of the lungs testing for patients as well as medical professionals, companies are developing spirometers with improved designs and features. The main objective here being to develop spirometers with higher yield and improved patient comfort without complications.

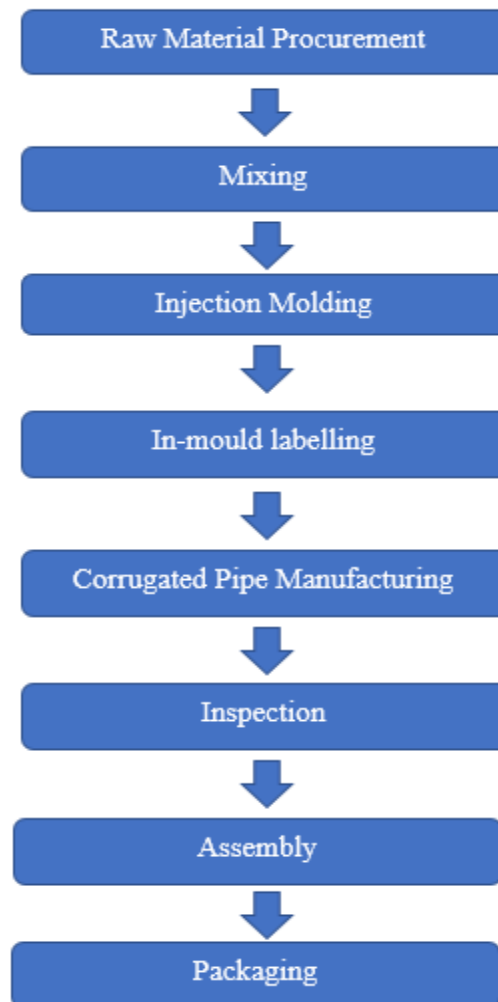
Product:

SPIROMETER

Raw Material:

1. Medical grade Thermoplastic
2. Mouth piece
3. 12 mm OD Pneumatic Air Line connector
4. EVA corrugated medical breathing tubes
5. Polyethylene colorful balls weighing in the range of 1 – 6 g

Manufacturing Process:



Area:

The land required for this manufacturing unit will be approx. around 2000 square feet.

Cost of Machines:

S No.	Machine	Price (INR)
1.	Vertical Mixer	1,25,000/-
2.	Injection Molding Machine	5,50,000/-
3.	Automatic corrugated pipe Making Machine	6,00,000/-
4.	Planetary saw	4,00,000/-
5.	Paper printing machine	1,00,000/-
6.	Industrial Cooling Unit	1,00,000/-
	Total	18,75,000/-

Power Requirement- The estimated Power requirement is taken at 25 KWH.

Manpower Requirement- Following manpower is required:

- Skilled/unskilled worker-6
- Helper- 2
- Sales Personal and Accountant- 2

FINANCIALS

<u>PROJECTED BALANCE SHEET</u>					
PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
<u>Capital Account</u>					
Opening Balance	-	2.64	4.12	6.45	9.32
Add: Additions	2.40	-	-	-	-
Add: Net Profit	3.74	5.98	8.23	9.47	11.87
Less: Drawings	3.50	4.50	5.90	6.60	8.70
Closing Balance	2.64	4.12	6.45	9.32	12.48
CC Limit	3.82	3.82	3.82	3.82	3.82
Term Loan	15.80	11.85	7.90	3.95	-
Sundry Creditors	1.15	1.32	1.50	1.68	1.87
TOTAL :	23.42	21.12	19.67	18.77	18.18
<u>APPLICATION OF FUND</u>					
Fixed Assets (Gross)	19.75	19.75	19.75	19.75	19.75
Gross Dep.	2.91	5.39	7.51	9.31	10.84
Net Fixed Assets	16.84	14.36	12.24	10.44	8.91
Current Assets					
Sundry Debtors	2.09	2.50	2.86	3.24	3.64
Stock in Hand	3.31	3.83	4.37	4.93	5.52
Cash and Bank	1.18	0.44	0.20	0.16	0.11
TOTAL :	23.42	21.12	19.67	18.77	18.18
	-	-	-	-	-

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	I	II	III	IV	V
<u>A) SALES</u>					
Gross Sale	62.64	74.89	85.75	97.12	109.21
Total (A)	62.64	74.89	85.75	97.12	109.21
<u>B) COST OF SALES</u>					
Raw Material Consumed	34.56	39.69	45.00	50.49	56.16
Electricity Expenses	2.24	2.52	2.80	3.08	3.36
Repair & Maintenance	1.88	2.25	2.57	2.91	3.28
Labour & Wages	9.32	11.19	13.54	15.98	18.37
Depreciation	2.91	2.48	2.11	1.80	1.53
Cost of Production	50.91	58.12	66.02	74.26	82.70
Add: Opening Stock /WIP	-	2.16	2.51	2.87	3.25
Less: Closing Stock /WIP	2.16	2.51	2.87	3.25	3.65
Cost of Sales (B)	48.75	57.78	65.66	73.88	82.30
C) GROSS PROFIT (A-B)	13.89	17.11	20.09	23.24	26.91
	22.17%	22.85%	23.43%	23.93%	24.64%
D) Bank Interest i) (Term Loan)	1.93	1.58	1.14	0.71	0.27
ii) Interest On Working Capital	0.42	0.42	0.42	0.42	0.42
E) Salary to Staff	5.29	6.14	6.88	7.43	8.02
F) Selling & Adm Expenses Exp.	2.51	3.00	3.43	3.88	4.37
G) TOTAL (D+E+F)	10.15	11.13	11.87	12.44	13.08
H) NET PROFIT	3.74	5.98	8.23	10.81	13.83
	6.0%	8.0%	9.6%	11.1%	12.7%
I) Taxation	-	-	-	1.34	1.97
J) PROFIT (After Tax)	3.74	5.98	8.23	9.47	11.87

PROJECTED CASH FLOW STATEMENT

PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
Own Contribution	2.40	-			
Reserve & Surplus	3.74	5.98	8.23	10.81	13.83
Depreciation & Exp. W/off	2.91	2.48	2.11	1.80	1.53
Increase In Cash Credit	3.82				
Increase In Term Loan	17.78	-	-	-	-
Increase in Creditors	1.15	0.17	0.18	0.18	0.19
TOTAL :	31.80	8.63	10.52	12.79	15.56
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	19.75	-	-	-	-
Increase in Stock	3.31	0.52	0.54	0.56	0.59
Increase in Debtors	2.09	0.41	0.36	0.38	0.40
Repayment of Term Loan	1.98	3.95	3.95	3.95	3.95
Taxation	-	-	-	1.34	1.97
Drawings	3.50	4.50	5.90	6.60	8.70
TOTAL :	30.63	9.37	10.75	12.83	15.61
Opening Cash & Bank Balance	-	1.18	0.44	0.20	0.16
Add : Surplus	1.18	- 0.74	- 0.23	- 0.04	- 0.06
Closing Cash & Bank Balance	1.18	0.44	0.20	0.16	0.11

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	I	II	III	IV	V
<u>Finished Goods</u>					
(10 Days requirement)	2.16	2.51	2.87	3.25	3.65
<u>Raw Material</u>					
(10 Days requirement)	1.15	1.32	1.50	1.68	1.87
Closing Stock	3.31	3.83	4.37	4.93	5.52

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars	Amount	Margin(10%)	Net Amount
Stock in Hand	3.31		
Less:			
Sundry Creditors	1.15		
Paid Stock	2.16	0.22	1.94
Sundry Debtors	2.09	0.21	1.88
Working Capital Requirement			3.82
Margin			0.42
MPBF			3.82
Working Capital Demand			3.82

REPAYMENT SCHEDULE OF TERM LOAN							11.0%
Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I	Opening Balance						
	Ist Quarter	-	17.78	17.78	0.49	-	17.78
	Iind Quarter	17.78	-	17.78	0.49	-	17.78
	IIIrd Quarter	17.78	-	17.78	0.49	0.99	16.79
	Ivth Quarter	16.79	-	16.79	0.46	0.99	15.80
						1.93	1.98
II	Opening Balance						
	Ist Quarter	15.80	-	15.80	0.43	0.99	14.81
	Iind Quarter	14.81	-	14.81	0.41	0.99	13.83
	IIIrd Quarter	13.83	-	13.83	0.38	0.99	12.84
	Ivth Quarter	12.84		12.84	0.35	0.99	11.85
						1.58	3.95
III	Opening Balance						
	Ist Quarter	11.85	-	11.85	0.33	0.99	10.86
	Iind Quarter	10.86	-	10.86	0.30	0.99	9.88
	IIIrd Quarter	9.88	-	9.88	0.27	0.99	8.89
	Ivth Quarter	8.89		8.89	0.24	0.99	7.90
						1.14	3.95
IV	Opening Balance						
	Ist Quarter	7.90	-	7.90	0.22	0.99	6.91
	Iind Quarter	6.91	-	6.91	0.19	0.99	5.93
	IIIrd Quarter	5.93	-	5.93	0.16	0.99	4.94
	Ivth Quarter	4.94		4.94	0.14	0.99	3.95
						0.71	3.95
V	Opening Balance						
	Ist Quarter	3.95	-	3.95	0.11	0.99	2.96
	Iind Quarter	2.96	-	2.96	0.08	0.99	1.98
	IIIrd Quarter	1.98	-	1.98	0.05	0.99	0.99
	Ivth Quarter	0.99		0.99	0.03	0.99	- 0.00
						0.27	3.95
<p>Door to Door Period 60 Months</p> <p>Moratorium Period 6 Months</p> <p>Repayment Period 54 Months</p>							

CALCULATION OF D.S.C.R

PARTICULARS	I	II	III	IV	V
<u>CASH ACCRUALS</u>	6.65	8.46	10.34	11.27	13.40
Interest on Term Loan	1.93	1.58	1.14	0.71	0.27
Total	8.58	10.04	11.48	11.98	13.67
<u>REPAYMENT</u>					
Repayment of Term Loan	1.98	3.95	3.95	3.95	3.95
Interest on Term Loan	1.93	1.58	1.14	0.71	0.27
Total	3.90	5.53	5.09	4.66	4.22
DEBT SERVICE COVERAGE RATIO	2.20	1.82	2.26	2.57	3.24
AVERAGE D.S.C.R.			2.38		

Assumptions:

- 1.** Production Capacity of Spirometer is 120 Units per day. First year, Capacity has been taken @ 40%.
- 2.** Working shift of 10 hours per day has been considered.
- 3.** Raw Material stock and Finished goods closing stock has been taken for 10 days.
- 4.** Credit period to Sundry Debtors has been given for 10 days.
- 5.** Credit period by the Sundry Creditors has been provided for 10 days.
- 6.** Depreciation and Income tax has been taken as per the Income tax Act, 1961.
- 7.** Interest on working Capital Loan and Term loan has been taken at 11%.
- 8.** Salary and wages rates are taken as per the Current Market Scenario.
- 9.** Power Consumption has been taken at 25 KWH.
- 10.** Selling Prices & Raw material costing has been increased by 3% & 2% respectively in the subsequent years

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