PROJECT REPORT

Of

COOLER PUMPS

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Cooler Pumps 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 Entreprenuer		xxxxxxxxxx
2	Constitution (legal Status)	:	xxxxxxxxxx
3	Father / Spouse Name		xxxxxxxxxxxx
4	Unit Address	:	xxxxxxxxxxxxxxxxxxxxxx District : xxxxxxx Pin: xxxxxxx State: xxxxx Mobile xxxxxxx
5	Product and By Product	:	**COOLER PUMP**
6	Name of the project / business activity proposed :		**COOLER PUMP MANUFACTURING UNIT**
7	Cost of Project	:	Rs.13.79 Lakhs
8	Means of Finance Term Loan Own Capital Working Capital		 Rs.8.1 Lakhs Rs.1.38 Lakhs Rs.4.31 Lakhs
9	Debt Service Coverage Ratio	:	3.12
10	Pay Back Period	:	5 Years
11	Project Implementation Period	:	5-6 Months
12	Break Even Point	:	35%
13	Employment	:	11 Persons
14	Power Requirement	:	20.00 HP
15	Major Raw materials	:	PVC Impeller, Stamping Pair, Insulated Paper, ABS Pump Casing, Steel pin with bush and other materials
16	Estimated Annual Sales Turnover (Max Capacity)	:	95.90 Lakhs
17	Detailed Cost of Project & Means of Finance		

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Plant & Machinery	8.50
Furniture & Fixtures	0.50
Working Capital	4.79
Total	**13.79**

MEANS OF FINANCE

Particulars	Amount
Own Contribution	1.38
Working Capital(Finance)	4.31
Term Loan	8.10
Total	**13.79**

COOLER PUMP MANUFACTURING UNIT

Introduction:

Cooler pump basically is compact, submersible water pumps are mostly used on air coolers, aquariums, and fountains. By virtue of it's functions it is also called centrifugal pumps. The centrifugal pump is commonly found inside a submersible fountain pump and desert coolers As the impeller inside it turns, water is drawn in one side of the pump. It is then expelled out the other end. The power and size of the impeller decide the amount of water flow. More water can be pumped if we have a larger impeller. As the impeller rotates, it moves water from the inlet (which is located near the center of rotation of the impeller) along the surfaces of the impeller to the outer portions of the volute by means of centrifugal force (thus, its name centrifugal pump). As this water collects in the outer regions of the volute, it is directed to the outlet. The water leaving the outlet causes the water pressure to drop at the inlet. To match the rate with which water is leaving the outlet, the pump sucks in new water at the inlet. These pumps must be primed before starting, which in this case is already done because of its underwater application.

Uses & Market Potential:

Cooling water pumps are used for supplying heat exchangers with cooling water. Their flow rate varies depending on the heat flow to be dissipated. The required head is determined by the type of cooling system. A distinction is made between wet cooling and dry cooling processes. As the construction of residential accommodation, office complex and the standard of living is increasing day by day, demand for this item is also increasing specially in the sections of society who are not able to afford air conditioned. It is understood that during the period of last 10 years there is a rise in demand for the item @ 60 % p.a. and this trend is likely to continue. Desert coolers are economical (both initial and running costs are low) and are effective in hot and dry areas. They are not effective in humid areas.
These motors have different ratings. The demand for such motor is increasing day by day.

Product:

Cooler Pump

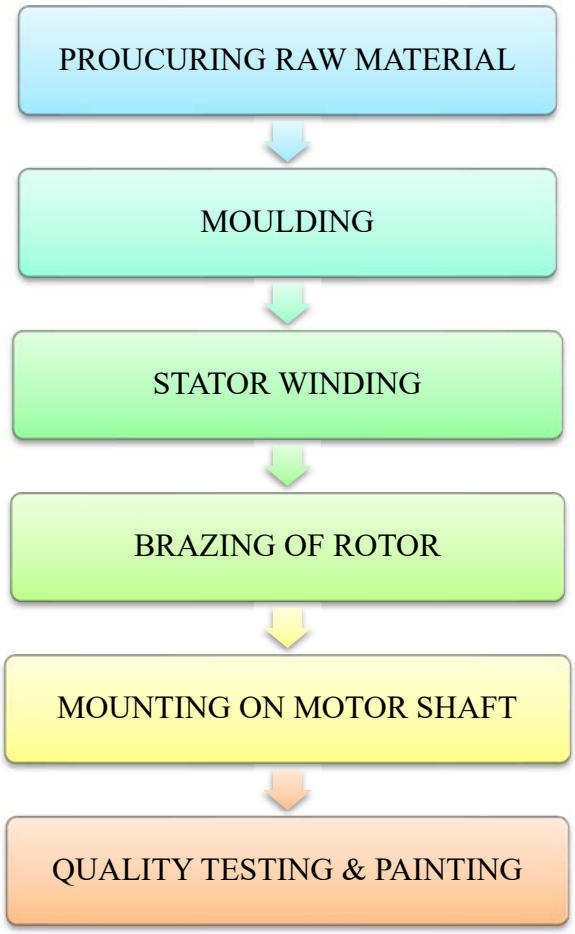
Raw Material:

Raw materials are as follows:

- PVC Impeller
- Stamping Pair
- 32SWG Copper wire for stator coil winding
- PVS Bobbin pair for coil binding

- Insulated Paper
- ABS Pump Casing
- Permanent Magnet Rotor
- Steel Pin with bush
- Hardware including plate terminal
- Wiring, varnish, rubber washers and other miscellaneous

Manufacturing Process:



Area:

The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and polishing area. Also, some of the area of building is required for office staff facilities, office furniture, etc. Thus, the approximate total area required for complete industrial setup is 1200-1800Sqft.

Cost of Machines:

S.N.	Description	Amount
1	Radial Drill machine	20,000
2	Bench drill machine	8,000
3	Sharper stroke	30,000
4	Hand press	5,000
5	Hacksaw machine	32,000
6	Balancing Machine	1,00,000
7	Automatic CNC Coil Winding Machine	5,00,000
8	Baking Oven	25,000
9	Hand Shear	10,000
10	Air Compressor with Accessories	10,000
11	Oxygen Acyteline Cylinder with accessories	20,000

12	Testing Equipment's: HV tester, Insulation Resistance Tester, Voltmeter, Ammeter, Wattmeter etc.	40,000
13	Other equipment's	50,000
	Total Amount	**8,50,000**

Power Requirement- The estimated Power requirement is taken at 20 HP.

Manpower Requirement– Following manpower is required:

- Machine operator-2
- Skilled/unskilled worker-3
- Helper-4
- Manager cum Accountant-1
- Sales Personnel-1

FINANCIALS

PROJECTED BALANCE SHEET

PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Capital Account					
Opening Balance	-	2.14	3.11	4.41	6.14
Add: Additions	1.38	-	-	-	-
Add: Net Profit	3.26	4.27	5.10	6.03	7.11
Less: Drawings	2.50	3.30	3.80	4.30	5.00
Closing Balance	2.14	3.11	4.41	6.14	8.25
CC Limit	4.31	4.31	4.31	4.31	4.31
Term Loan	7.20	5.40	3.60	1.80	-
Sundry Creditors	1.43	1.64	1.85	2.08	2.31
TOTAL :	**15.08**	**14.46**	**14.17**	**14.33**	**14.88**
APPLICATION OF FUND					
Fixed Assets (Gross)	9.00	9.00	9.00	9.00	9.00
Gross Dep.	1.33	2.45	3.42	4.23	4.93
Net Fixed Assets	7.68	6.55	5.58	4.77	4.07
Current Assets					
Sundry Debtors	2.53	3.07	3.52	3.99	4.48
Stock in Hand	3.69	4.25	4.82	5.41	6.01
Cash and Bank	1.19	0.59	0.25	0.17	0.32
TOTAL :	**15.08**	**14.46**	**14.17**	**14.33**	**14.88**
	-	-	-	-	-

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	I	II	III	IV	V
A) SALES					
Gross Sale	54.15	65.78	75.37	85.41	95.90
Total (A)	**54.15**	**65.78**	**75.37**	**85.41**	**95.90**
B) COST OF SALES					
Raw Material Consumed	28.50	32.70	37.07	41.59	46.28
Elecricity Expenses	1.79	2.01	2.24	2.46	2.69
Repair & Maintenance	1.35	1.64	1.88	2.14	2.40
Labour & Wages	12.35	14.82	17.19	19.59	21.95
Depreciation	1.33	1.13	0.96	0.82	0.70
Cost of Production	45.32	52.31	59.34	66.60	74.01
Add: Opening Stock /WIP	-	2.27	2.62	2.97	3.33
Less: Closing Stock /WIP	2.27	2.62	2.97	3.33	3.70
Cost of Sales (B)	43.05	51.96	58.99	66.24	73.64
C) GROSS PROFIT (A-B)	11.10	13.82	16.39	19.17	22.26
	20.50%	**21.01%**	**21.74%**	**22.45%**	**23.22%**
D) Bank Interest i) (Term Loan)	0.88	0.72	0.52	0.32	0.12
ii) Interest On Working Capital	0.47	0.47	0.47	0.47	0.47
E) Salary to Staff	5.67	6.52	7.69	8.93	10.00
F) Selling & Adm Expenses Exp.	0.81	1.84	2.41	2.99	3.84
G) TOTAL (D+E+F)	**7.84**	**9.55**	**11.10**	**12.71**	**14.43**
H) NET PROFIT	3.26	4.27	5.28	6.46	7.83
	6.0%	**6.5%**	**7.0%**	**7.6%**	**8.2%**
I) Taxation	-	-	0.19	0.43	0.72
J) PROFIT (After Tax)	3.26	4.27	5.10	6.03	7.11

PROJECTED CASH FLOW STATEMENT

PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Own Contribution	1.38	-	-	-	-
Reserve & Surplus	3.26	4.27	5.28	6.46	7.83
Depriciation & Exp. W/off	1.33	1.13	0.96	0.82	0.70
Increase In Cash Credit	4.31	-	-	-	-
Increase In Term Loan	8.10	-	-	-	-
Increase in Creditors	1.43	0.21	0.22	0.23	0.23
TOTAL :	**19.81**	**5.61**	**6.46**	**7.51**	**8.77**
APPLICATION OF FUND					
Increase in Fixed Assets	9.00	-	-	-	-
Increase in Stock	3.69	0.56	0.57	0.59	0.60
Increase in Debtors	2.53	0.54	0.45	0.47	0.49
Repayment of Term Loan	0.90	1.80	1.80	1.80	1.80
Taxation	-	-	0.19	0.43	0.72
Drawings	2.50	3.30	3.80	4.30	5.00
TOTAL :	**18.62**	**6.20**	**6.81**	**7.59**	**8.61**
Opening Cash & Bank Balance	-	1.19	0.59	0.25	0.17
Add : Surplus	1.19	- 0.60	- 0.34	- 0.08	0.15
Closing Cash & Bank Balance	**1.19**	**0.59**	**0.25**	**0.17**	**0.32**

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	I	II	III	IV	V
Finished Goods					
(15 Days requirement)	2.27	2.62	2.97	3.33	3.70
Raw Material					
(15 Days requirement)	1.43	1.64	1.85	2.08	2.31
Closing Stock	**3.69**	**4.25**	**4.82**	**5.41**	**6.01**

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars	Amount	Margin(10%)	Net Amount
Stock in Hand	3.69		
Less:			
Sundry Creditors	1.43		
Paid Stock	**2.27**	**0.23**	**2.04**
Sundry Debtors	2.53	0.25	2.27
Working Capital Requirement			**4.31**
Margin			0.48
MPBF			**4.31**
Working Capital Demand			**4.31**

REPAYMENT SCHEDULE OF TERM LOAN 11.0%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	Cl Balance
I	Opening Balance						
	Ist Quarter	-	8.10	8.10	0.22	-	8.10
	Iind Quarter	8.10	-	8.10	0.22	-	8.10
	IIIrd Quarter	8.10	-	8.10	0.22	0.45	7.65
	Ivth Quarter	7.65	-	7.65	0.21	0.45	7.20
					0.88	0.90	
II	Opening Balance						
	Ist Quarter	7.20	-	7.20	0.20	0.45	6.75
	Iind Quarter	6.75	-	6.75	0.19	0.45	6.30
	IIIrd Quarter	6.30	-	6.30	0.17	0.45	5.85
	Ivth Quarter	5.85		5.85	0.16	0.45	5.40
					0.72	1.80	
III	Opening Balance						
	Ist Quarter	5.40	-	5.40	0.15	0.45	4.95
	Iind Quarter	4.95	-	4.95	0.14	0.45	4.50
	IIIrd Quarter	4.50	-	4.50	0.12	0.45	4.05
	Ivth Quarter	4.05		4.05	0.11	0.45	3.60
					0.52	1.80	
IV	Opening Balance						
	Ist Quarter	3.60	-	3.60	0.10	0.45	3.15
	Iind Quarter	3.15	-	3.15	0.09	0.45	2.70
	IIIrd Quarter	2.70	-	2.70	0.07	0.45	2.25
	Ivth Quarter	2.25		2.25	0.06	0.45	1.80
					0.32	1.80	
V	Opening Balance						
	Ist Quarter	1.80	-	1.80	0.05	0.45	1.35
	Iind Quarter	1.35	-	1.35	0.04	0.45	0.90
	IIIrd Quarter	0.90	-	0.90	0.02	0.45	0.45
	Ivth Quarter	0.45		0.45	0.01	0.45	- 0.00
					0.12	1.80	

Door to Door Period	60	Months
Moratorium Period	6	Months
Repayment Period	54	Months

CALCULATION OF D.S.C.R

PARTICULARS	I	II	III	IV	V
CASH ACCRUALS	4.59	5.40	6.06	6.85	7.81
Interest on Term Loan	0.88	0.72	0.52	0.32	0.12
Total	5.47	6.12	6.58	7.17	7.94
REPAYMENT					
Repayment of Term Loan	0.90	1.80	1.80	1.80	1.80
Interest on Term Loan	0.88	0.72	0.52	0.32	0.12
Total	1.78	2.52	2.32	2.12	1.92
DEBT SERVICE COVERAGE RATIO	**3.07**	**2.43**	**2.84**	**3.38**	**4.13**
AVERAGE D.S.C.R.			**3.12**		

Assumptions:

1. Production Capacity of Cooler Pumps Manufacturing unit is taken at 250 Pcs 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 15 days.

4. Credit period to Sundry Debtors has been given for 14 days.

5. Credit period by the Sundry Creditors has been provided for 15 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 20 HP.

10. Selling Prices & Raw material costing has been increased by 3% & 2% respectively in the subsequent years.

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