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PROJECT REPORT

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PROJECT:

Metal Jewellery Unit

**PROJECT REPORT
OF
METAL JEWELLERY
MANUFACTURING UNIT
PURPOSE OF THE DOCUMENT**

This particular pre-feasibility is regarding Metal Jewellery.

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.]

PROJECT AT GLANCE

1 Name of Proprietor/Director	XXXXXXXXXX	
2 Firm Name	XXXXXXXXXX	
3 Registered Address	XXXXXXXXXX	
4 Nature of Activity	XXXXXXXXXX	
5 Category of Applicant	XXXXXXXXXX	
6 Location of Unit	XXXXXXXXXX	
7 Cost of Project	24.21	Rs. In Lakhs
8 Means of Finance		
i) Own Contribution	2.42	Rs. In Lakhs
ii) Term Loan	16.29	Rs. In Lakhs
iii) Working Capital	5.50	Rs. In Lakhs
9 Debt Service Coverage Ratio	3.28	
10 Break Even Point	73.79	
11 Power Requirement	20	KW
12 Employment	13	Persons
13 Major Raw Materials		
14 Details of Cost of Project & Means of Finance		

COST OF PROJECT	
(in Lacs)	
PARTICULARS	Amount
Land & Building	Owned/Rented
Plant & Machinery	15.65
Miscellaneous Assets	1.20
Furniture	1.25
Working capital Required	6.11
Total	24.21

MEANS OF FINANCE	
(in Lacs)	
PARTICULARS	Amount
Own Contribution @ 10%	2.42
Term Loan @ 90%	16.29
Working Capital (Bank Finance)	5.50
Total	24.21

METAL JEWELLERY MAKING UNIT

1. INTRODUCTION

While the bulk of jewellery may be regarded as wearable decorations, generally produced from high-value materials such as precious metals and diamonds, this definition is regularly questioned and extended by what are commonly referred to as "art jewellery" or "modern jewellery." Traditional jewellery making may be viewed as a type of micro-engineering in terms of materials and procedures, as it necessitates the precise fabrication of metal items. The majority of jewellery is made of precious metals such as silver, gold, platinum, and palladium, but it may also be made of alternative materials such as pewter (particularly for tourist work) or steel. Manufacturing jewellery, like any other creative form, is a time-consuming and skill-intensive procedure. Each item of jewellery must be conceptualized by the designer while taking into account all of the various production processes and disadvantages, and then converted into beautiful pieces that we can sell and wear. Back in the day, all metals were moulded to shape and jewels were set by hand, which took a long time. Bench jewellers and craftsmen now have access to a variety of machines and technologies to assist them in creating their creations with ease and speed, thanks to technological developments.

Because of its similarity to gold, brass is one of the most preferred metals for jewellery. It has been utilized in the production of exquisite jewellery creations since its inception. Brass is a great choice for jewellery because of its affordability, workability, and durability. It's becoming more popular in the jewellery market. Brass is a copper-zinc alloy with a high copper content. Different kinds of brass are made by varying the amounts of copper and zinc. Other metals, such as lead and nickel, can sometimes be added to brass. The term

"solid brass jewellery" refers to jewellery that is entirely composed of brass. Brass-plated objects, on the other hand, are occasionally encountered. When a thin layer of brass is applied to the surface of another metal, such as steel or zinc, it is known as brass plating. It's tough to discern the difference between solid brass and brass plated jewellery. Brass can be made into all forms of jewellery, including rings, necklaces, bracelets, bangles and earrings. Because brass is a durable metal, it is ideal for placing jewels. The combination of brass and colourful jewels creates a lovely and ancient look. Brass is a versatile hue that goes with virtually every other colour. Brass may also be combined with other metals to create a distinctive effect. For a unique and attractive appearance, combine brass with silver or copper.



2. PRODUCT DESCRIPTION

2.1 PRODUCT USES

Brass jewellery is any ornamental piece crafted from brass, an alloy constituting two metals – copper and zinc. It has a warm, attractive golden tone that bears a close resemblance to gold. Brass is affordable too making it the material of choice among many artisans and jewelry lovers.

2.2 RAW MATERIAL REQUIREMENT

The major raw materials are as follows:

- Brass sheet and wire roll
- Special Wax
- Copper for Electroplating

2.3 MANUFACTURING PROCESS

Jewellery designing is an art, an art that is changing with time and technology. In this project we are making rings.

- The first step in creating a one-of-a-kind item is to create a design. This is the starting place for the magic. It is the stage in which the designer creates a design concept, assesses it, and then brings it to life.
- CAD software is used to boost a designer's productivity, enhance design quality and dimensional accuracy, and build a database for production. A design is sketched on paper and then entered into the system once it has been developed in the imagination of the jewelry designer. Computer Aided Designing technology aids in the process of incorporating a design into the system.
- Next metal sheet is cut. Metal can be cut with a jeweler's saw, tin snips, other cutting pliers, drilling attachments on flex shafts, disc cutters, or metal punches.
- After cutting metal, the edges should be filed with metal files and/or sanded with steel wool to remove sharp edges and dangerous burs left on the metal. Filing is a method for removing extra metal or solder from a working

component. It is a method of removing the casting layer with the use of various instruments such as files and burrs. It provides the item a sleek finish. Assembly is the process of joining two or more components of the same design.

- Next CNC router machine is used to engrave designs on these cut sheets which gives the half formation of the jewelry.
- Polishing gives a thing a nice polish and increases its worth. Tumbling, pre-polishing, and ultra-cleaning are the three phases in the polishing process.
- The ready formed jewelry head is now attached with the brass finished wire for hanging which is cut using wire cutting machine and the hooks to attach are made manually.
- Next stage is final polishing. Polishing can be done by hand or by machine. If the jewelry is hand polished, the craftsman will use solid buff, soft buff, hair buff, coin buff, single line ball buff, green rouse for shine, platinum polishing rouse, black luster for removing casting/filling layers, red rouse to impart shine, and white rouse to remove roughness, among other tools.
- After this electroplating is done using copper to provide the jewelry a complete finished look by the removal of corrosion.
- The final stage concludes by doing buffing process which gives shine to the product.

Finally, the product is ready and packet to sale in the market

3. PROJECT COMPONENTS

3.1 Land /Civil Work

The land require for this manufacturing unit will be approx. around 3500-4000 square feet. We have not considered the cost of Land purchase & Building Civil work in the project. It is assumed that land & building will be on rent & approx. rental of the same will be Rs. 25000.00 per month.

3.2 Plant & Machinery

- **Disc Cutters-** A disc cutter is a specialized, generally hand-held power instrument that is used to cut hard materials such as ceramic tile, metal, concrete, and stone.



- **Wire Cutting Machine-** This machine is used to cut the brass wire for making the hangings of the crafted design on metal sheet to make jewelry.



- **CNC Router Machine-** Jewelry engravings, door carvings, interior and exterior decorations, wood panels, sign boards, wooden frames, moldings, musical instruments, and furniture may all be made with a CNC router. In addition, they are used in industry to automate the cutting process while thermoforming polymers.



- **Filing & Sanding Machine-** This machine is commonly used to finish smoothing of the metal sheet to make its sharp edges blunt.



- **Buffing Machine-** Buffing machines are commonly used to improve the appearance of metal surfaces. Buffing machines are used to eliminate the

dull appearance of metal surfaces and give them a polished new aspect, whether they are vehicles, machinery, or even glass.



Electroplating unit- Electroplating is widely used in industry and decorative arts to improve the surface qualities of objects—such as resistance to abrasion and corrosion, lubricity, reflectivity, electrical conductivity, or appearance.



4. LICENSE & APPROVALS

Basic registration required in this project:

- Factory License
- Udyam online registration
- NOC from Fire Safety Board
- NOC from Pollution Control Board
- GST Registration

PROJECTED BALANCE SHEET

<u>PROJECTED BALANCE SHEET</u>		(in Lacs)				
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year	
<u>Liabilities</u>						
Capital						
opening balance		4.73	8.72	14.60	20.88	
<i>Add: - Own Capital</i>	2.42					
Add: - Retained Profit	5.31	8.80	11.88	14.08	16.76	
Less: - Drawings	<u>3.00</u>	<u>4.80</u>	<u>6.00</u>	<u>7.80</u>	<u>10.50</u>	
Closing Balance	<u>4.73</u>	<u>8.72</u>	<u>14.60</u>	<u>20.88</u>	<u>27.15</u>	
Term Loan	14.48	10.86	7.24	3.62	-	
Working Capital Limit	5.50	5.50	5.50	5.50	5.50	
Sundry Creditors	2.30	2.82	3.38	4.00	4.66	
Provisions & Other Liab	0.12	0.15	0.18	0.22	0.26	
TOTAL:	27.13	28.06	30.90	34.22	37.56	
<u>Assets</u>						
Fixed Assets (Gross)	18.10	18.10	18.10	18.10	18.10	
Gross Dep.	2.65	4.91	6.84	8.48	9.89	
Net Fixed Assets	15.45	13.19	11.26	9.62	8.21	
Current Assets						
Sundry Debtors	4.87	6.14	7.39	8.72	10.17	
Stock in Hand	3.66	4.43	5.28	6.23	7.25	
Loans and advances/other current assets	1.00	3.00	5.80	8.40	11.00	
Cash and Bank	2.15	1.29	1.18	1.25	0.93	
TOTAL:	27.13	28.06	30.90	34.22	37.56	

PROJECTED PROFITABILITY STATEMENT

<u>PROJECTED PROFITABILITY STATEMENT</u>						(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year	
Capacity Utilisation %	30%	35%	40%	45%	50%	
<u>SALES</u>						
Necklace	97.44	122.89	147.70	174.31	203.32	
Total	97.44	122.89	147.70	174.31	203.32	
<u>COST OF SALES</u>						
Raw Material Consumed	57.60	70.56	84.48	99.90	116.40	
Electricity Expenses	3.84	4.22	4.65	5.11	5.62	
Depreciation	2.65	2.26	1.93	1.64	1.40	
Wages & labour	11.52	13.82	16.59	19.91	23.89	
Repair & maintenance	2.44	3.07	3.69	4.36	5.08	
Consumables	2.92	3.81	4.73	6.10	6.91	
Cost of Production	80.97	97.75	116.06	137.02	159.31	
Add: Opening Stock /WIP	-	2.70	3.26	3.87	4.57	
Less: Closing Stock /WIP	2.70	3.26	3.87	4.57	5.31	
Cost of Sales	78.27	97.19	115.45	136.32	158.56	
GROSS PROFIT	19.17	25.70	32.25	37.99	44.76	
	19.67%	20.91%	21.84%	21.79%	22.01%	
Salary to Staff	6.96	8.35	10.02	12.03	14.43	
Interest on Term Loan	1.60	1.41	1.01	0.61	0.22	
Interest on working Capital	0.61	0.61	0.61	0.61	0.61	
Rent	3.00	3.30	3.63	3.99	4.19	
selling & adm exp	1.46	1.97	2.51	3.14	3.86	
TOTAL	13.63	15.63	17.78	20.38	23.31	
NET PROFIT	5.54	10.07	14.47	17.61	21.45	
Taxation	0.23	1.27	2.59	3.53	4.68	
PROFIT (After Tax)	5.31	8.80	11.88	14.08	16.76	
	5.45%	7.16%	8.04%	8.08%	8.24%	

PROJECTED CASH FLOW STATEMENT

<u>PROJECTED CASH FLOW STATEMENT</u>					(in Lacs)
<u>PARTICULARS</u>	<u>1st year</u>	<u>2nd year</u>	<u>3rd year</u>	<u>4th year</u>	<u>5th year</u>
<u>SOURCES OF FUND</u>					
Own Margin	2.42				
Net Profit	5.54	10.07	14.47	17.61	21.45
Depreciation & Exp. W/off	2.65	2.26	1.93	1.64	1.40
Increase in Cash Credit	5.50	-	-	-	-
Increase in Term Loan	16.29	-	-	-	-
Increase in Creditors	2.30	0.52	0.56	0.62	0.66
Increase in Provisions & Oth lib	0.12	0.03	0.03	0.04	0.04
TOTAL:	34.83	12.88	16.98	19.91	23.55
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	18.10				
Increase in Stock	3.66	0.78	0.84	0.96	1.02
Increase in Debtors	4.87	1.27	1.24	1.33	1.45
Repayment of Term Loan	1.81	3.62	3.62	3.62	3.62
Increase in loans and advances	1.00	2.00	2.80	2.60	2.60
Drawings	3.00	4.80	6.00	7.80	10.50
Taxation	0.23	1.27	2.59	3.53	4.68
TOTAL:	32.67	13.74	17.09	19.84	23.87
Opening Cash & Bank Balance	-	2.15	1.29	1.18	1.25
Add: Surplus	2.15	-0.86	-0.11	0.07	-0.32
Closing Cash & Bank Balance	2.15	1.29	1.18	1.25	0.93

D.S.C.R.

<u>CALCULATION OF D.S.C.R.</u>					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
CASH ACCRUALS	7.96	11.06	13.81	15.72	18.16
Interest on Term Loan	1.60	1.41	1.01	0.61	0.22
Total	9.56	12.47	14.82	16.34	18.38
<u>REPAYMENT</u>					
Instalment of Term Loan	1.81	3.62	3.62	3.62	3.62
Interest on Term Loan	1.60	1.41	1.01	0.61	0.22
Total	3.41	5.03	4.63	4.23	3.84
DEBT SERVICE COVERAGE RATIO	2.80	2.48	3.20	3.86	4.79
AVERAGE D.S.C.R.	3.43				

REPAYMENT SCHEDULE OF TERM LOAN

REPAYMENT SCHEDULE OF TERM LOAN								
							Interest	11.00%
Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance	
1st	Opening Balance							
	1st month	-	16.29	16.29	-	-	16.29	
	2nd month	16.29	-	16.29	0.15	-	16.29	
	3rd month	16.29	-	16.29	0.15	-	16.29	
	4th month	16.29	-	16.29	0.15		16.29	
	5th month	16.29	-	16.29	0.15		16.29	
	6th month	16.29	-	16.29	0.15		16.29	
	7th month	16.29	-	16.29	0.15	0.30	15.99	
	8th month	15.99	-	15.99	0.15	0.30	15.69	
	9th month	15.69	-	15.69	0.14	0.30	15.39	
	10th month	15.39	-	15.39	0.14	0.30	15.08	
	11th month	15.08	-	15.08	0.14	0.30	14.78	
	12th month	14.78	-	14.78	0.14	0.30	14.48	
					1.60	1.81		
2nd	Opening Balance							
	1st month	14.48	-	14.48	0.13	0.30	14.18	
	2nd month	14.18	-	14.18	0.13	0.30	13.88	
	3rd month	13.88	-	13.88	0.13	0.30	13.58	
	4th month	13.58	-	13.58	0.12	0.30	13.27	
	5th month	13.27	-	13.27	0.12	0.30	12.97	
	6th month	12.97	-	12.97	0.12	0.30	12.67	
	7th month	12.67	-	12.67	0.12	0.30	12.37	
	8th month	12.37	-	12.37	0.11	0.30	12.07	
	9th month	12.07	-	12.07	0.11	0.30	11.77	
	10th month	11.77	-	11.77	0.11	0.30	11.46	
	11th month	11.46	-	11.46	0.11	0.30	11.16	
	12th month	11.16	-	11.16	0.10	0.30	10.86	
					1.41	3.62		
3rd	Opening Balance							
	1st month	10.86	-	10.86	0.10	0.30	10.56	
	2nd month	10.56	-	10.56	0.10	0.30	10.26	
	3rd month	10.26	-	10.26	0.09	0.30	9.96	
	4th month	9.96	-	9.96	0.09	0.30	9.65	
	5th month	9.65	-	9.65	0.09	0.30	9.35	
	6th month	9.35	-	9.35	0.09	0.30	9.05	
	7th month	9.05	-	9.05	0.08	0.30	8.75	

8th month	8.75	-	8.75	0.08	0.30	8.45
9th month	8.45	-	8.45	0.08	0.30	8.15
10th month	8.15	-	8.15	0.07	0.30	7.84
11th month	7.84	-	7.84	0.07	0.30	7.54
12th month	7.54	-	7.54	0.07	0.30	7.24
				1.01	3.62	
4th	Opening Balance					
1st month	7.24	-	7.24	0.07	0.30	6.94
2nd month	6.94	-	6.94	0.06	0.30	6.64
3rd month	6.64	-	6.64	0.06	0.30	6.34
4th month	6.34	-	6.34	0.06	0.30	6.03
5th month	6.03	-	6.03	0.06	0.30	5.73
6th month	5.73	-	5.73	0.05	0.30	5.43
7th month	5.43	-	5.43	0.05	0.30	5.13
8th month	5.13	-	5.13	0.05	0.30	4.83
9th month	4.83	-	4.83	0.04	0.30	4.53
10th month	4.53	-	4.53	0.04	0.30	4.22
11th month	4.22	-	4.22	0.04	0.30	3.92
12th month	3.92	-	3.92	0.04	0.30	3.62
				0.61	3.62	
5th	Opening Balance					
1st month	3.62	-	3.62	0.03	0.30	3.32
2nd month	3.32	-	3.32	0.03	0.30	3.02
3rd month	3.02	-	3.02	0.03	0.30	2.72
4th month	2.72	-	2.72	0.02	0.30	2.41
5th month	2.41	-	2.41	0.02	0.30	2.11
6th month	2.11	-	2.11	0.02	0.30	1.81
7th month	1.81	-	1.81	0.02	0.30	1.51
8th month	1.51	-	1.51	0.01	0.30	1.21
9th month	1.21	-	1.21	0.01	0.30	0.91
10th month	0.91	-	0.91	0.01	0.30	0.60
11th month	0.60	-	0.60	0.01	0.30	0.30
12th month	0.30	-	0.30	0.00	0.30	-
				0.22	3.62	
DOOR TO DOOR MORATORIUM PERIOD	60	MONTHS				
REPAYMENT PERIOD	6	MONTHS				
	54	MONTHS				

DISCLAIMER

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