

BRASS AND BRONZE CASTING (DOCRA CASTING)

1. INTRODUCTION

An alloy of copper and zinc is known as brass. The production of copper and zinc varies in this alloy depending upon requirement of mechanical properties and end use of the products. Normally 60% of the copper and 40% of the zinc variety is very common for castings.

Copper alloy with tin is known as gun metal or tin bronze and has wide application in engineering, marine and automobile industry. Copper alloyed with aluminium is known as aluminium bronze. It is also extensively used in the industry where higher strength of material is required. Brass and bronze are also very commonly used in manufacture of decorative items and hardware.

2. MARKET

Brass and bronze items have very good market potential. The demand for use of brass and bronze art ware for decoration purpose in the houses and offices has increased. It being service industry and it attracts a threat from pollution control board clearance for operating the unit. It is advised to start the unit outside the city or town limits.

3. MANUFACTURING PROCESS

The process of casting involves melting of desired composition, preparation of mould cavity of sand, pouring the molten metal into mould cavity, knocking the mould after solidification and cooling of the castings fitting and cleaning.

4. PRODUCTION CAPACITY PER ANNUM

Capacity

26000 Kgs per annum

Selling Price

Rs. 20 Perkg

5. PROJECT COST/CAPITAL INVESTMENT

S.No	Description	Amount Rs.
1	Preliminary & Preoperative Expns	3000
2	Fixed Capital	77000
3	Working Capital for 2 month(s)	70000
	Total Project Cost	150000

6. MEANS OF FINANCE

S.No	Description	%age	Amount Rs.
1	Promoter Contribution	15%	22500

2	Subsidy	20%	30000
3	Term Loan	65%	97500
	Total		150000

7. FINANCIAL ASPECTS

A. FIXED CAPITAL

i. Land and Buildings Rented 3000 per month

ii. Machinery and Equipment

S.No	Description	Qty.	Rate	Amount Rs.
1	Melting shop - oil fired tilting furnace-2 HP	1	30000	30000
2	Furnace oil tank	1	10000	10000
3	moulding box with hammer ventor etc	1	12000	12000
4	Bench grinder, fitting equipment	1	7000	7000
5	Weighing balances & measuiring eqpt			3000
6	Office furniture			5000
7	Electrification & installation costs			10000
	Total			77000

B. WORKING CAPITAL

i. Salaries & Wages (per month)

S.No	Description	Nos.	Sal/mon.	Amount Rs.
1	Manager/Entrepreneur	1	3000	3000
2	Skilled Labour	3	3000	9000
3	Smi-skilled Labour	2	2000	4000
4	Unskilled workers	1	1500	1500
	Total			17500

ii. Raw Material (per month)

S.No	Description	Unit	Qty.	Rate	Amount Rs.
1	job work	Kgs			0
					0
	Total				0

iii. Utilities (per month)

S.No	Description	Unit	Amount Rs.
1	Power	LS	3000
2	Fuel, furnace oil	LS	6000
3	Water	LS	500
	Total		9500

iv. Other Expenses (per month)

S.No	Description	Amount Rs.
1	Postate & Stationery Expenses	500
2	Transportation Expenses	1500
3	Consumable Stores	2000
4	Miscellaneous Expenses	1000
	Total	5000

v. Total Working Capital (per month)

S.No	Description	Amount Rs.
1	Rent	3000
2	Salaries and Wages	17500
3	Raw Material	0
4	Utilities	9500
5	Other Expenses	5000
	Total	35000

8. COST OF PRODUCTION (PER ANNUM)

S.No	Description	Amount Rs.
1	Total Working Capital	420000
2	Depreciation @ 15%	11550
3	Interest @ 12%	11700
	Total	443250

9. TURNOVER (PER YEAR)

S.No	Description	Unit	Qty.	Rate Rs.	Amount Rs.
1		Kgs per annu	26000	20	520000
	Total				520000

10. FIXED COST (PER YEAR)

S.No	Description	Amount Rs.
1	Depreciation	11550
2	Interest	11700
3	Rent	36000
4	Salaries & Wages @ 40%	84000
5	Other Expenses incl. Utilities @ 40%	69600
	Total	212850

11. PROFIT ANALYSIS & RATIOS

1	Net Profit	Rs.	76750
2	Percentage of Profit on Sales		15%
3	Percentage of Return on Investment		51%
4	Break Even Point		73%