

PROJECT PROFILE
ON
MACHINING COMPONENTS FOR TWO WHEELERS.

PART-I

NAME OF THE PRODUCT : **MACHINING COMPONENTS FOR TWO WHEELERS.**

PRODUCT CODE : NIC Code 35911, 35912 & 35919 and other similar code

QUALITY & STANDARD : As per Specification of Two Wheelers Manufacturers.

PRODUCTION CAPACITY : The production capacity of the unit at 75% capacity utilisation.

Item	Quantity	Value (Rs.)
Machining Components of different designs.	120 MT	1,90,00,000/-

MONTH & YEAR OF PREPARATION : January, 2012.

PREPARED BY : **MSME - Development Institute,**
Ministry of Micro, Small & Medium Enterprises,
Government of India
107, Industrial Estate, Kalpi Road,
Kanpur-208012.

Tele. 2295070, 2295071 & 2295073 (EPBAX)
Tele. No. 2295072 (SENET & TRC)
Tele/Fax No.: 0512- 2240143
email: dcdi-kanpur@dcmsme.gov.in
Website: msmedikanpur.gov.in

PROJECT PROFILE

ON

MACHINING COMPONENTS FOR TWO WHEELERS.

PART-II

A) INTRODUCTION

A good number of machining components are used in two wheelers having common names such as rods, spacers, axels, control pipes, special purpose fasteners, studs, bushes etc. These components have different kind of uses such as torque transmission, movement controller, fasteners etc.

The sizes and designs of these machining components are different for different models of two wheelers. Sizes of such components vary depending upon design of mother auto unit. Normally machining components are produced in close tolerances i.e. are very accurate and precise. Some components are produced on common machines while components needing accuracy ≤ 10 microns are produced on CNC machines. The raw material varies from ordinary mild steel to special purpose alloy steel.

B) MARKET POTENTIAL

The demand of the machining components is closely linked with production of two wheelers in the country. These are required mainly as original equipment but these components also have replacement demand as spare parts.

India is second largest two wheelers market in the world.

The production, domestic sales & export figures for two wheelers for past years are as follows:

Financial Year/ Corresponding Two Wheeler figures	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Production	6529829	7608697	8466666	8026681	8419792	10512902	13376451
Domestic Sales	6209765	7052391	7872334	7249278	7437619	9370951	11790305
Export	366407	513169	619644	819713	1004174	1140058	1539590

- Except for the year 2007-08 and 2008 -09 these had been constant rise in production of two wheelers.
- 2009-10 onwards there is notable growth in the two wheeler sector and it is projected that it will continue in future also.
- Per capita two wheeler possession (per thousand people)

Taiwan	-	590
Thailand	-	286
Malaysia	-	258
China	-	52
India	-	37
- It is being forecasted by the Industry that two wheeler procession will increase drastically in the for the coming years

So there is a lot of scope for expansion of industries.

C) BASIS & PRESUMPTIONS

1. The basis for calculation of production capacity is on single shift basis, working of 25 days per month on 75 % efficiency. The required for achieving envisaged capacity utilization is assumed as one year.
2. BEP for the scheme has been calculated on full capacity utilization.
3. Rate of interest has been taken as 13% on an average. This, however, is likely to vary depending upon the financial outlay and the location of the unit.
4. Labour wages have been taken on the basis of minimum applicable. These are likely to change depending upon the location of the project.
5. Rental charges of R's.50/- per sq. mtr. Per month has been taken on an average. This figure is likely to vary depending upon the location of the unit.
6. Margin money requirement differs from project to project and type of entrepreneurs such as women, SC/ST, physically handicapped etc. and the minimum margin money usually asked by the financial institutions and banks is 15%. Margin money upto 25% in some cases is also asked. The entrepreneurs may check the margin money requirement from financial institutions for the project.

7. Term of loan differs from one financial institution to another and in gestation minimum period is normally 6 months and it could be 2 years. Maximum period for repayment of loan is 7 years including gestation period. The exact terms and conditions may be found by the entrepreneurs from the concerned financial institutions.
8. The cost of machinery & equipments as indicated in the scheme are approximate those ruling at the time of preparation of the scheme. The entrepreneur may check the exact price for specific make and model of the machine selected.
9. Non-refundable deposits, cost of preparation of project report etc. may be considered under pre-operative expenses.
10. The provision made in other respect viz; raw materials, utilities, overheads etc. are drawn on the basis of standard variation and output. The cost indicated against each are approximate and based on local market condition and observations. The entrepreneur may find out the exact cost from the concerned sources.
11. The operative period of this project is estimated to be about 10 years considering technology obsolescence.

D) IMPLEMENTATION SCHEDULE:

Sl. No.	Activity	Period
1.	Quotation period	1 month
2.	Registration EM -1 & EM-2	2 months
3.	Sanction of loan	
4.	Delivery of machines & equipments, installation, electrification, testing etc.	4 months

E) TECHNICAL ASPECTS:

(i) Process of Manufacture:

The manufacturing process is as follows:

- i) Cutting of rods/pipes to desired length on power hacksaw or Lathe.
- ii) Machining on lathe/trop/milling/grinding machine.
- iii) Making of slots /holes on milling machine/drilling machine.
- iv) Deburring by hand or on buffing machine.
- v) Inspection & packing.

(ii) Quality Control and Standards

The machining components should be manufactured strictly as per drawing of two wheelers manufacturer, because any deviation beyond the tolerance limits will definitely lead to fitment problem as these pipes are subjected to close assembling.

The zinc plating of components should be good and plating thickness should be order of 7-8 microns. Yellow passivation after zinc plating improves the corrosion resistance of pipes and adds to aesthetics of components but all the treatments are to be done strictly as per the instructions of the buying unit.

(iii) Production Capacity:

Item	Quantity	Value (`s)
Machining Components of different designs.	120 MT	1,90,00,000/-

(iv) Approximate Power Requirement:

30 H.P.

(v) Pollution Control:

Not required.

F) FINANCIAL ASPECTS:**A) Fixed Capital:****(i) Land & Building:**

Land 500 sq. mtr. 250 sq.mtr. covered area, remaining open area. `s **25,000/-**
Rented

Two months deposit `s **50,000/-**

(ii) Machinery & Equipment:

Sl. No	Item	Qty. (Nos.)	Amount (In `s)
1.	Computers with minimum 19" LCD monitors, UPS, Printer.	1 set	2,00,000/-
2.	Designing Software	1 set	5,00,000/-
3.	CNC Lathe Machine with essential and regular accessories maximum turning Dia 100mm	3	24,00,000/-
4.	CNC Milling Machine with essential and regular accessories Long X Cross X Vertical traverse 150 mm X 450 mm X 200 mm	1	20,00,000/-
5.	Milling Machine Long X Cross X Vertical Traverses 200 mm X 600 mm X 300 mm with 3 KW Motor & Electricals	1	4,00,000/-

6.	Lathe Machine length 1000 mm with essential and regular accessories height of the centre 150 mm with 1.5 KW Motor & Electricals	4	24,000/-
7.	Centre less Grinding Machine grinding capacity dia 50 mm, length 400 mm with 5 KW Motor and Electricals.	1	4,50,000/-
8.	Tool & Cutter Grinder, size distance between the centres 760 mm, height of the centre 130 mm with 1.5 KW motor & electricals	1	2,50,000/-
9.	Surface Grinding Machine 1000 mm X 200 mm, Manual Feed with 2.2 KW motor & electricals	1	3,00,000/-
10.	Trop machine with 1 KW motor and electricals	5	6,00,000/-
11.	Fly Press of different sizes	2	30,000/-
12.	Hand Shearing Machine (Sheet Cutter)	2	20,000/-
13.	MIG Welding Machine 1 KVA	1	28,000/-
14.	Spot Welding Machine 1 KVA	2	60,000/-
15.	Gas Welding Set	1 Set	40,000/-
16.	Power Hacksaw	4	80,000/-
17.	Pedestal Grinder	2	20,000/-
18.	Bench Drilling Machine 13 mm cap.	2	10,000/-
	Total:		67,12,000/-
19.	Electro Civil Installation @ 10% of the cost of machinery		6,71,200/-
20.	Jigs and fixtures, Hand tools & Measuring Instruments etc.		3,00,000/-
21.	Office Furniture, Computer with UPS and Printer and other appliances		1,50,000/-
	Total:		78,33,200/-

(iii) Pre – Operative Expenses**40,000/-****Total Fixed Capital (i) + (ii) + (iii) =****Rs.79,23,200/-****B) Working Capital (Per Month):****(i) Personnel:**

Sl. No.	Designation	No.	Salary	Total (₹s)
1.	Manager	1	30,000/-	30,000/-
2.	Supervisor	2	20,000/-	40,000/-
3.	Designer	1	20,000/-	20,000/-
4.	Skilled Workers	6	8,000/-	48,000/-
5.	Semi-Skilled Workers	10	6,000/-	60,000/-
6.	Accountant	1	8,000/-	8,000/-
7.	Contractual Workers	LS		50,000/-
	Total:			2,56,000/-
	Add Perquisites @ 15% of salary & wages.			38,400/-
	Total:			2,94,400/-

(ii) Raw Materials Requirements:

Sl. No.	Item Particulars	Ind/ Imp	Quantity	Rate	Amount (In `s)
1.	Alloy Steels, Carbon Steels, Rod of different dia/section	Ind	10 MT	80000/MT (Average)	8,00,000/-
2.	Steel Pipes / Tubes	Ind.	1000 Mtrs.	LS	2,00,000/-
3.	CRCA / HR Steel Sheets	Ind.	2 MT	40000/MT	80,000/-
4.	Packing material & other consumables		LS		25,000/-
Total:					11,05,000/-

(iii) Utilities:

1.	Power 8000 KWH @ Rs. 5/- per KWH	40,000/-
2.	Water	1,000/-
Total:		41,000/-

(iv) Other Contingent Expenses (P.M.):

1	Rent	25,000/-
2	Telephone/Cell phone	1,000/-
3	Postage & Stationery	1,000/-
4	Repairs & Maintenance	5,000/-
5	Transportation charges	3,000/-
6	Insurance	5,000/-
7	Sales expenses	25,000/-
8	Misc. expenses	5,000/-
Total:		70,000/-

(v) Working Capital / Total Recurring Expenditure (P.M.):

1.	Personnel	2,94,400/-
2.	Raw Materials	11,05,000/-
3.	Utilities	41,000/-
4.	Other Contingent Expenses	70,000/-
Total:		15,10,400/-

(vi) Total working capital for 1½ months = `22,65,600/-

C) TOTAL CAPITAL INVESTMENT:

I.	Fixed Capital	79,23,200/-
II.	Working Capital for 1½ months	22,65,600/-
Total:		1,01,88,800/-

G) FINANCIAL ANALYSIS:**i) Cost of Production (Per annum)**

Sl. No.	Particulars	Value(₹)
1.	Total recurring expenditure	1,81,24,800/-
2.	Depreciation on machinery and equipment @ 10%	6,71,200/-
3.	Depreciation on Dies, Tools, Fixtures, Office Equipment & appliances etc. @ 20%	90,000/-
4.	Interest on Total Capital Investment @ 13%	13,24,544/-
Total: -		2,02,10,544/-

ii) Sales/Turnover (Per Annum)

Sl. No.	Item	Value (₹)
1.	By sale of different type of machining components per month	18,50,000/-
2.	By sale of Scrap and minor components per month	50,000/-
Total:		19,00,000/-
Total Turn Over (Per Annum):		2,28,00,000/-

iii) NET PROFIT (Per annum) Before Taxation:

Turn Over	(-)	Cost of Production	=	25,89,456/-
2,28,00,000/-	(-)	2,02,10,544/-		

iv) PROFIT RATIO ON SALES (Per Annum):

$$\frac{\text{Profit/annum} \times 100}{\text{Turnover/Annum}} = \frac{25,89,456/- \times 100}{2,28,00,000/-} = 11.36\%$$

v) RATE OF RETURN (Per Annum):

$$\frac{\text{Net Profit/annum} \times 100}{\text{Total Capital Investment}} = \frac{25,89,456/- \times 100}{1,01,88,800/-} = 25.41\%$$

BREAK EVEN POINT**Fixed Cost:**

1.	Rent	`s	3,00,000/-
2.	Total Depreciation	`s	7,61,200/-
3.	Interest on Investment @ 13%	`s	13,24,544/-
4.	40% of Salary & Wages	`s	1,17,760/-
5.	40% of other contingent expenses (excluding rent & insurance)	`s	2,16,000/-
	Total:-	`s	27,19,504/-

B.E.P.

$$\frac{\text{Fixed Cost} \times 100}{\text{Fixed Cost} + \text{Profit}} = \frac{27,19,504/- \times 100}{27,19,504/- + 25,89,456/-} = 51.22\%$$

Names & Address of Machinery & Equipment Suppliers:

1. M/s Chhabra Industrial Corporation,
B-8, Jindal Trust Bldg., Asif Ali Road, New Delhi – 110001.
2. M/s United Machine Tools corporation,
GT Road, Bholewal, Ludhiana -3.
3. M/s Pioneer Engg. Works,
5-B, Textile Colony, Industrial Area, Ludhiana – 141003.
4. M/s Chawla Mechanical Works,
1727, Dashmush Nagar, Street No.12, Gill Road, Ludhiana 141003.
5. M/s Ashok Machine Tools,
Madvi Plot Rajkot – 360002.
6. M/s HMT Ltd.,
Byawara Road, Ajmer, Rajasthan.
7. M/s Darshan Machine Tools,
Gali No. 1, Guru Nanak Colony, Opp. Guru Nanak Engg. College, Gill Road,
Ludhiana – 141003.
8. PMT Machines Ltd.,
Behind PCMC Building, Mumbai – Pune Road,
Pune – 411 018
Email: pmtmtal@vsnl.com

Address of Raw Material Suppliers:

1. M/s Tata Steels – Local Depot
2. M/s Steel Authority of India Ltd. – Local Depot
3. M/s Quality Steel Tubes,
Bindki Road, Chaudagra, Fatehpur.
4. Local Market.

PSB*Jan.*2012*