

AUTOMOBILE SILENCER

PRODUCT CODE	NIC: 29301
QUALITY STANDARDS AND	Customer's Satisfaction
PRODUCTION CAPACITY	Qty: 15,000 Pcs per annum Value: 90,00,000 per annum
MONTH AND YEAR OF PREPARATION	March 2021
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INTRODUCTION

Automobile Silencer is a device used to reduce the noise produced by the engine. Silencer is used in automobile vehicles to reduce the noise produced by the exhaust gases of the engine. Silencer is also used in many other engines and generators. The size, shape and construction varies according to the type and size of the engine.

MARKET POTENTIAL

The automobile industry all over the world is growing at a very high rate and different vehicles are always seen on the road. The production of silencer thus has a very good potential as it can be sold as original equipment and also in the replacement market. With the growth of the economy and increase in road transport, the demand of silencer is growing. Since the demand of the automobile vehicles scooters, motorcycles, auto rickshaw, moped etc. is increasing day by day in the country, there is good scope of auto silencer the demand of which is expected to increase by 8 to 10% in near future.

BASIS AND PRESUMPTIONS

1. It is based on 8 working hours a day and 25 days in a month and the break even efficiency has been calculated on 75% capacity utilization.
2. Labour and wages are mentioned as per prescribed minimum wages and the proprietor is considered as a Manager.
3. Interest is considered @ 16% in the project for recurring and non-recurring investment.
4. The margin money as applicable to general categories of entrepreneurs may be 25% of the project cost.
5. The payback period may be 5 years after the loan has been disbursed.
6. The cost of the land, construction charges, cost of machinery and equipment, raw materials and consumables, other contingent expenses etc. indicated in the profile are based on the prices prevailing at the time of project preparation and can be changed from time based upon local conditions.

IMPLEMENTATION SCHEDULE

Sno.	Activity	No. of Days
1	Survey for collection of data in respect of demand, raw material including power and fuel, pollution control, procurement of technical know-how etc.	0-45
2	Arrangement of finance for margin money and other financial assistance	30-60
3	Preparation of project report	60-90
4	Selection of site (Rented Building)	90-120
5	Placement of orders and receipt of machines and of workers/ staff recruitment	90-150
6	Procurement of raw material/ bought out components/tools/ measuring equipment/gauges etc.	150-180
7	Erection of machines/ electrification and commissioning	180-210
8	Trial production	210-240
9	Commercial production	240-270

TECHNICAL ASPECTS

MANUFACTURING PROCESS

The process of manufacturing Auto Silencer does not involve any special technology, it is a simple press working process. The sheets are cut into the required size and shape. These sheets are then given the desired shape with the help of power presses, edge folding machines and bending rollers. The mufflers are also made out of sheet with the help of presses. These mufflers are then gas welded in one half of the silencer, the other half of the silencer with MS tubing's according to the requirement and are gas welded. These are now assembled and spray painted. The silencers are then cleaned and packed for dispatch.

QUALITY CONTROL AND STANDARDS

Good workmanship and best quality of raw material must be used to satisfy the consumers.

POLLUTION CONTROL

The assembled product will be spray painted or nickel plated for which arrangements for exhaust fans will be made in the plating section.

ENERGY CONSERVATION

The energy conservation of this unit is on the low side since the low power motors are used in the production activity. The workers of the unit should be made aware of the need to conserve energy by switching off the energy sources when not required. Capacitors may be used at suitable points. All presses and machinery should be lubricated properly and regularly.

FINANCIAL ASPECTS

FIXED CAPITAL

LAND AND BUILDING RENTAL

S no	Description	Amount
1	Rented shed covered Area 300 Sq. meter @ Rs. 60 per sq. Mtrs.	18000

MACHINERY AND EQUIPMENTS

S no	Description	Qty	Rate	Amount
1	Shearing Machine 4' Blade Size, Capacity up to 2mm Thickness 5 HP motor (Treadle operated)	1	2,00,000	2,00,000
2	Power press 30 T Capacity (3 HP motor)	1	1,50,000	1,50,000
3	Power press 5 Ton Capacity with 1 HP motor	2	50,000	1,00,000
4	Fly press No.18	2	15,000	30,000
5	Sheet bending roll with 2mm ×1200mm cap. with 2HP motor	1	80,000	80,000
6	Bench Grinder with 8" Wheel dia and ½ HP Motor	1	15,000	15,000
7	Edge folding Machine	1	50,000	50,000
8	MIG/TIG Welding set with Accessories	2	30,000	60,000
9	Spot Welding Machine	2	40,000	80,000
10	Work Bench, Tables and Racks	L.S	1,00,000	1,00,000
11	Tools Dies, Jigs, Fixtures and Measuring instruments	L.S	1,50,000	1,50,000
Sub Total				10,15,000
12	Office Furniture	L.S	1,00,000	1,00,000
13	Electrification and Installation Charges @10% of the machinery Cost	L.S		1,01,500
14	Pre-Operative expenses	L.S	50,000	50,000
Total fixed Capital				1266500

WORKING CAPITAL (PER MONTH)

STAFF AND LABOUR

Sno.	Designation	Nos.	Rate in Rs	Amount in Rs
1	Supervisor/Foreman	1	18000	18000
2	Skilled Workers	3	15000	45000
3	Semi Skilled Workers	4	12000	48000

4	Store Keeper	1	12000	12000
5	Clerk	1	12000	12000
6	Helper	2	10000	20000
7	Peon	1	10000	10000
8	Watchman	1	10000	10000
Total				1,75,000
Add Perquisites @ 15% of Salary				26250
Total				201250
Say				201300

Raw Materials

S no	Particulars	Qty	Rate in Rs	Amount in Rs
1	CRCA Sheet	4000 Kg	50/Kg	200000
2	M.S. Tube	500 Mtr	45/Mtr	22500
Total				222500

Utilities

S no	Particulars	Qty	Rate in Rs	Amount in Rs
1	Power	2500 KWH	7/KWH	17500
2	Water	30000 L	500/10000L	3000
Total				20500

Other Contingent Expenses

S no	Particulars	Qty	Amount in Rs
1	Consumables	Lump sump	10000
2	Postage and Stationery	Lump sump	5000
3	Transportation	Lump sump	10000
4	Repairs and Maintenance	Lump sump	5000
5	Advertisement and Publicity	Lump sump	20000
6	Miscellaneous	Lump sump	15000
7	Insurance and Taxes	Lump sump	10000
Total			75000

Total recurring Expenditure per Month

S no	Particulars	Amount in Rs
1	Staff and Labour	201300
2	Raw Material	222500
3	Utilities	20500
4	Other Contingent expenses	75000
Total		5,19,300

Total Working Capital for 3 months..... 15,57,900

TOTAL CAPITAL INVESTMENT

Fixed Capital.....	12,66,500
Working Capital for 3 months.....	15,57,900
Total.....	28,24,400

FINANCIAL ANALYSIS

COST OF PRODUCTION

Particulars	Amount in Rs.
Total Recurring Cost	62,31,600
Depreciation on plant and Machinery @ 10%	86,500
Depreciation on Tools and Accessories @ 25%	37,500
Depreciation on Office equipment @ 20%	20,000
Interest on capital Investment @ 14%	3,95,416
Total	67,71,016 ~ 67,71,000

TURN OVER

Particulars	Qty	Rate	Amount in Rs.
By sale of Large Silencer	5000	1000	50,00,000
By Sale of Small Silencer	10000	400	40,00,000
Total			90,00,000

Net Profit (Per Year) : Turnover-Cost of Production
 = 90,00,000 - 67,71,000
 = 22,29,000

Profit Ratio = Net Profit x 100 / Total turn over
 = 22,29,000 x 100 / 90,00,000
 = 24.76%

Rate of Return = Net Profit x 100 / Total investment
 = 22,29,000 x 100 / 67,71,000
 = 32.92%

BREAK EVEN POINT

Fixed Cost per Year	Amount in Rs
Depreciation	1,44,000
Interest on capital Investment @ 14%	3,95,416
40% of Salary and wages	9,66,240
40% of other contingent expenses	3,60,000
Rent and Insurance	2,26,000
Total Fixed Cost	2091656

B.E.P = Fixed cost x 100 / Fixed cost + profit
 = 2091656 x 100 / 2091656 + 22,29,000
 = 2091656 x 100 / 4320656
 = 48%

ADDRESSES OF MACHINERY AND EQUIPMENT SUPPLIERS

1. M/s. Amteep Machine Tools (P) Ltd.
14/7, Mathura Road, Faridabad (Haryana)
2. M/s. Tools Today (India)
D-52, Phase-V, Focal Point, Ludhiana-141101.
3. M/s. Jaymes Engg. Works
Birhana Road, Kanpur (U.P.)
4. M/s. Batliboi and Co.
Parliament Street, New Delhi.
5. M/s. Ashoka Machine Tools Corpn.
A-15, Mayapuri, Indl. Area, New Delhi.

ADDRESSES OF PRESS SUPPLIERS

1. M/s. Amteep Machine Tools P. Ltd.
14/7, Mathura Road, Faridabad (Haryana)
2. M/s. Batliboi and Co.
G.T. Road, Miller Ganj, Ludhiana.
3. M/s. Birson Industries
262, Industrial Area "A", Ludhiana.

ADDRESSES OF TESTING AND MEASURING EQUIPMENT SUPPLIERS

1. M/s. PSI Sales (P) Ltd.
604, Hemkunt House, 6, Rajendra Place, New Delhi.
2. M/s. Accurate Sales and Service (P) Ltd.
Gange House, 67, Hadarpur Indl. Estate, P. B. No. 1202, Pune-410013.
3. M/s. Bombay Tools (P) Ltd.
50, Nagdevi Cross Lane, Mumbai-400003.

RAW MATERIAL SUPPLIERS

Raw material can be purchased by the local suppliers available in the market.