

PROJECT PROFILE ON OPERATION THEATER TABLE

PRODUCT : OPERATION THEATER TABLE

PRODUCTION CAPACITY : 600 Nos. / Annum

MONTH & YEAR OF PREPARATION : October 2010

**PREPARED BY : Mechanical Division
MSME Development Institute,
#11-A, IDC, Nr. ITI, Kunjpura Road,
KARNAL – 132 001 (Haryana)
Phone : 0184 – 223 0882, 223 1862 (Telefax)
E-mail : dcdi_karnal@demsme.gov.in
Website : www.msmedikarnal.gov.in**

PROJECT PROFILE FOR MANUFACTURING OF OPERATION THEATER TABLE

INTRODUCTION

Operation Theater (OT) Tables are generally made from stainless steel and / or chrome plated sections and fitted with other required accessories OT table requires immense attention towards its designing. To make cleaning more effective and efficient, it is always suggested to make the OT tables easy to clean especially the places like seams and cracks, that propagate bacteria / germs, should not be there to keep bacteria / germ free. Operation theater tables used in the operation theaters of the Hospitals are of various types such as with or without hydraulic attachments for lifting / lowering / tilting etc., with or without ortho attachment, specially used as gynae / labour OT table, etc.

MARKET POTENTIAL

With the increase in the population no. of new hospitals are coming up in Govt and private sector and also the existing hospitals are upgrading / extending their facilities. This is creating good market potential for OT Tables.

BASIS & PRESUMPTIONS

1. The scheme is worked out on a single shift basis of 8 hours in a day for 25 working days in a month.
2. The rate of interest in the scheme has been worked out on the basis of 12% on an average; however, this figure is likely to vary depending upon the financial outlay of the project as well as location of the unit.
3. The cost of machinery and equipment as indicated is approximate ruling locally at the time of preparation of the scheme.
4. The rates considered in respect of salaries and wages for workers and others are the minimum rates in the state/neighboring states.
5. Land and building is on rent.

IMPLEMENTATION SCHEDULE

Project implementation will take a period of 5 months from the date of approval of scheme. Break up of individual activity is shown below :-

S. No	Activity	Period (In weeks)
1.	Preparation of the project report	02
2.	Site Selection	03
3.	Filing of EM with DIC	01
4.	Financial Arrangement	10
5.	Procurement of Machinery & Equipments	10
6.	Installation and Electrification	03
7.	Recruitment of Staff and workers	03

TECHNICAL ASPECTS

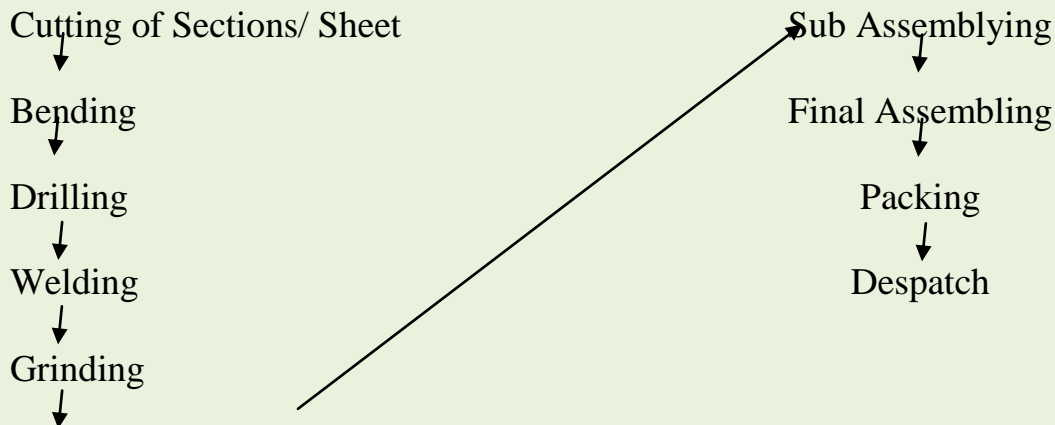
Process of Manufacture

OT Tables are designed to prevent the germs to avoid infection to the patient and staff. Sweeping and curvy designs in OT tables are ideal, as they reduce the amount of seams that comes into the contact with atmosphere, to avoid bacteria to hide.

Durability is another vital factor to look when manufacturing the OT tables. OT tables requires wide range of facilities to be created to make the operation of a patient successful such as sectional top with large cut for patient drainage tray, built in kidney bridge, smooth gear mechanism to avail all required operating positions, hydraulic lifting/ lowering / tilting arrangements, wheel base for easy mobility/ stability with floor locking facility, sealed mattress, with / without orthopedic attachments etc. For calculation purposes the OT Table without orthopedic attachments is considered in this project profile. OT table have following parts :-

1. Table Top
2. Base
3. Head & Leg Sections
4. Hydraulic Lift & accessories

The following steps are involves in manufacturing of OT tables :-



Chrome (as per requirements)

Major Head, Base, Top of the Frame, Slide Bars, Locks, Pump Lever etc. are made of stainless steel and standard accessories includes – Foot extension, side support, shoulder support, antistatic rubber pad, anesthetic screen, kidney elevator, leather wristlets, arm support anesthetic foam rubber mattress, arm woods etc.

Energy Conservation

With the growing energy need and shortage coupled with rising energy cost, greater thrust in energy efficiency is required. The following steps may be help for conservation of electrical energy: -

- i) Periodical maintenance of electrical motors, compressors etc.
- ii) Use of CFL instead of bulbs.
- iii) Use of PF corrector capacitor.
- iv) Timely switching on off of lights/ fan etc.
- v) Efficient management of process /machineries.

Quality Standard and Quality Control

Bureau of Indian Standards (BIS) has developed IS Specifications of IS 6106-1971 (Reaffirmed (1996) and IS 5291-1969 for OT Tables with Standard Accessories. The dimensions of OT Tables are given in Length, Width, Height / adjustable height, tilting angle etc.

The following check points / quality factors are considered while manufacturing the OT tables :-

- Proper fixing of wheels, rubber/ plastic grips.
- Proper stitching & sealing of upholstery moulding.
- Proper functioning of hydraulic devices etc.
- Proper welding of joints.

FINANCIAL ASPECTS

A) LAND & BUILDING

- A built up area of 300 Sq. Mtr on rental basis Rs. 15000/- per month.

B) MACHINERY & EQUIPMENTS

S.No.	Description	Quantity	Amount
1.	Treadle Guillotine Shearing Machine 48" width	1 Nos.	Rs. 90,000/-
2.	Lathe Machine 4' Size with standard accessories	1 Nos.	Rs. 75,000/-
3.	Bench Drilling Machine 3/4" capacity	1 No	Rs. 18,000/-
4.	Sheet Bending Machine	1 No	Rs. 1,00,000/-
5.	TIG Welding Set 300 Amp	1 Nos.	Rs. 55,000/-
6.	MIG Welding Set 300 Amp	1 Nos.	Rs. 55,000/-
7.	Pipe Cutting Machine	1 Nos.	Rs. 8,000/-
8.	Pipe Bending Machine	1 Nos.	Rs. 5,000/-
9.	Bench Grinder	1 Nos.	Rs. 13,000/-
10.	Power Press 30 MT	1 Nos.	Rs. 65,000/-
11.	Hand Grinder	1 Nos.	Rs. 12,000/-
12.	Hand Drilling Machine	01 Nos.	Rs. 9,000/-
13.	Installation & Electrification	10% of to cost of Machinery	Rs. 50,500/-
14.	Tools & Dies	LS	Rs. 40,000/-
15.	Measuring Instruments (Vernier calipers, Micro metals, measuring tape)	LS	Rs. 15,000/-
16.	Furniture & Office Equipments	LS	Rs. 100,000/-
17.	Pre Operative Expenses	LS	Rs. 50,000/-
	Total		Rs. 760,500/-

C) WORKING CAPITAL (PER MONTH)

i) Staff & Labour

S. No	Description	Nos.	Salary	Amount
1.	Foreman / Supervisor	01	12000	Rs. 12,000/-
2.	Sales / Manager	01	15000	Rs. 15,000/-
3.	Accountant –cum- Store Keeper	01	8000	Rs. 8000/-
4.	Skilled Workers	02	8000	Rs. 16,000/-
5.	Semi Skilled Workers	03	6000	Rs. 18,000/-
6.	Un Skilled Workers	02	4500	Rs. 9,000/-
	Total			Rs. 78,000/-

Add Pre operative expenses @ 15% of salary

Rs. 11,700/-

Total

Rs. 89,700/-

ii) Raw Material / Bought out Parts

S. No	Description	Quantity	Rate	Total Amount
1.	Stainless Steel Gr 302 & 304 Sheet / Pipe / Bar / Wire	2500 Kg	Rs. 200/- kg	Rs. 5,00,000/-
2.	Antistatic Rubber nylon tread caster	50 Sets	Rs. 200/- set	Rs. 10,000/-
3.	Moulded Plastic Parts	50 Sets.	Rs. 200/- set	Rs. 10,000/-
4.	Gear Box	50 No.	Rs. 2000/-	Rs. 1,00,000/-
5.	Hydraulic Pump	50 No.	Rs. 3000/- pump	Rs. 1,50,000/-
6.	50 mm thick electrically sealed mattress	50 sets	Rs. 2200/-	Rs. 110,000/-
7.	Steel Hardware/Misc.	LS	--	Rs. 60,000/-
			Total	Rs. 9,40,000/-

iii) Utilities

Electricity and Water charges – LS

Rs. 5000/-

iv) Other contingency expenses

S.No.	Description	Amount
1.	Rent	Rs. 15000/-
2.	Insurance	Rs. 3500/-
3.	Advertisement / Publicity	Rs. 5000/-
4.	Traveling Expenses	Rs. 4000/-
5.	Consumable Stores	Rs. 3000/-
6.	Repair & Maintenance	Rs. 3000/-
7.	Transportation & Packaging Charges	Rs. 5000/-
8.	Postage & Stationery	Rs. 2500/-
9.	Telephone Expenses	Rs. 1500/-
10.	Misc Expenses	Rs. 4000/-
	Total	Rs. 46,500/-

v) Total Recurring Expenses (Per Month)

1.	Personel	Rs. 89,700/-
2.	Raw Material	Rs. 9,40,000/-
3.	Utilities	Rs. 5,000/-
4.	Other cont. exp	Rs. 46,500/-
	Total =	Rs. 10,81,200/-

vi) Total Working Capital (for 3 months)

Rs. 10,81,200/- X 3 = Rs. 32,43,600/-

D. TOTAL CAPITAL INVESTMENT

1.	Fixed Capital	= Rs. 7,60,500/-
2.	Working Capital (fro 3 months)	= Rs. 32,43,600/-
	Total	= Rs. 40,04,100/-

Or Say Rs. 40,04,000/-

E. FINANCIAL ANALYSIS

1. Cost of Production (Per Month)

a.	Total recurring cost	Rs. 1,29,74,400/-
b.	Depreciation on machinery & equipments @ 10%	Rs. 57,050/-
c.	Depreciation on Furniture and office equipment @ 20%	Rs. 20,000/-

d.	Depreciation on tools, dies and measuring instruments @ 25%	Rs. 13,750/-
e.	Interest on total investment @ 12% pa	Rs. 4,80,480/-
	Total	Rs. 1,35,45,680/-

2. Turnover

By sale of 600 Nos of OT Tables @ Rs. 25,500/- Each Rs. 1,53,00,000/-

3. Net Profit (Per Year)

Rs. 1,53,00,000/- (-) Rs. 1,35,45,700/- = Rs. 17,54,300/-

4. Profit Ratio

= $\frac{\text{Net Profit}}{\text{Turnover Per annum}} \times 100$

$\frac{1754300}{15300000} \times 100$

= 11.466%

5. Rate of Return

= $\frac{\text{Net Profit Per Year}}{\text{Capital Investment}} \times 100$

= $\frac{1754300}{4004000} \times 100$

= 43.81%

6 Break Even Point

a) Fixed Cost (Per annum)

- Depreciation Rs. 90,800/-
- Interest on Investment Rs. 480,480/-
- 40% or salary and wages Rs. 430,560/-
- 40% of other cont. expenses and utilities. Rs. 158,400/-
- Insurance Rs. 42,000/-

F. ADDRESSES OF MACHINERY & EQUIPMENT SUPPLIERS

1.	m/S. Warpp Engineers (P) Ltd., Plot No. 67, Indl. Estate, Charkop, Kandivli (West) MUMBAI – 400 067 Ph 022 2868 7298	2.	M/s. Om Mechanical Works, Plot No. 5, Gali No. 4, New Rohtak Road Indl. Area, New Delhi
3.	M/s. United Engg. Corporation B-96, Mayapuri Phase I, Rewai Line, New Delhi	4.	M/s. Vishwakala Machine Tools, Gondal Road, Near ST Workshop, Rajkot – 300 004
5.	M/s. Modern Tools Mfrs. N-18, Phase I, Mayapuri Indl Area, New Delhi	6.	M/s. Berco Welding & Electricals (P) Ltd., GT Road, By Pass, Near Indl. Estate, Jalandhar City

G. RAW MATERIAL SUPPLIERS

Raw material locally available in the market.