

Design and Implementation of Costing System and MIS for Engineering and Manufacturing Company

Objectives

The objectives of the assignment were:

- Implementation of a simple spreadsheet based Costing System.
- Establishment of a MIS structure to support Management decision making
- Setting up of processes to support the Costing and MIS structure

This is based on the actual design and implementation of Costing and related MIS, for a multiproduct, multiprocess manufacturing company with a turnover of over Rs 100 Crores (Rs 1,000 Million).

Methodology

- Study of the production process in each of the different units
- Detailed discussion with the core production/technical team
- Deciding on the appropriate method of costing applicable for the nature of industry concerned
- Designing the cost sheet for the individual product/project concerned
- Drafting of the process report explaining the various systems, methodology and justification on the method applicable for the industry
- Developing the process manual – a complete overview of the costing system
- Developing the operations manual – a complete step by step guide for users
- Training workshops and seminars to familiarize the users with the system
- Hand holding through monthly audit and submission of Cost Audit Reports

Solution or Output

- Costing system was developed for 5 units and 5 sub-units.
- Developed Spreadsheet costing models for 10 units.
- Developed Process and user manuals for each unit

Sample Cost Sheet

Component Cost Sheet

COMPONENT COST SHEET	
Component Number	021-01-039-3
Qty Produced	39
Raw Materials	
Boughtout Components	0
Outsourced	0
Pre Manufacturing Cost	
Consultancy Charges	0
Designs and Drawings	0
Tools, Jigs, Dies	0
Manufacturing Cost	
Machine Shop	210
Fabrication	388
Paintshop	3
Set up cost	0
Idletime cost	139
Cost of quality	
Cost of Control	0
Cost of failure	0
Scrap	0
Rejects	0
Reworked	0
Returns	0
Less: Sale Value	0
Net cost of Failure	0
Overheads	
Admin Expenses	24
Selling Expenses	27
Financial Expenses	0
Interest on working capital	0
CSC Share	0
Corporate office share	0
Total Product cost	790
Cost per unit	20

The above worksheet shows the cost sheets generated for each component/part by the costing system. A drop down facility as shown in the cost sheet is given for selecting the component name. The user can select the desired component name from the drop down and view the cost sheet.

Sample M.I.S Sheet

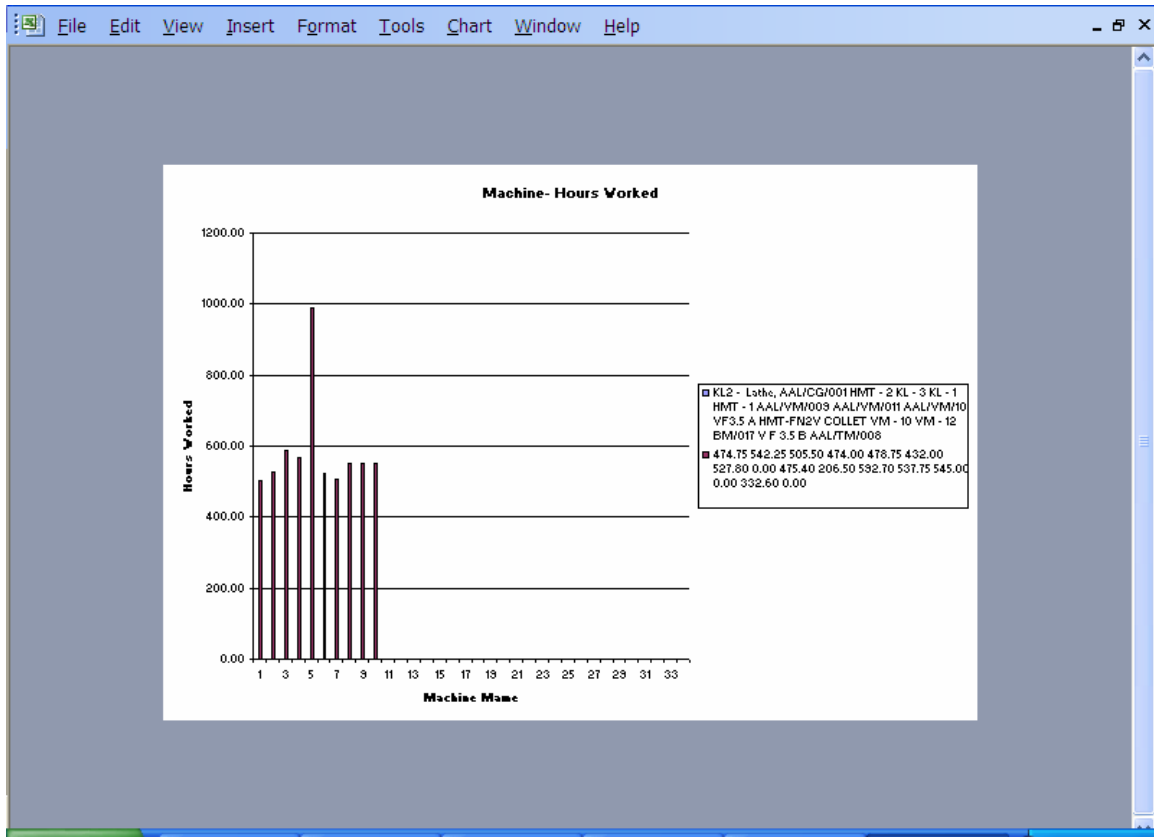
M.I.S Componentwise Cost Analysis

M.I.S-Componentwise Cost Analysis										
Component Name	Quantity Produced	Opening W.I.P	Raw Material Cost	Pre-Manufacturing Cost	Manufacturing Cost	Cost of Quality	Overheads	Total Product Cost	Cost per unit	Closing W.I.P
021-01-039-3	39		0	0	739	0	50	790	20	
194/04/2690	64		0	0	2375	0	158	2534	40	
194-04-261-4	0		7150	0	0	0	0	7150		
194-04-269-0	87		0	0	3101	0	207	3308	38	
194-40-232-4	1		0	0	74	0	5	79	79	
201/20/194042534	1		0	0	363	0	24	387	387	
201/40/011/3:1	3		0	0	1955	0	127	2082	694	
201/43/020/HR1	10		0	0	808	0	53	861	86	
201/55/088/04	107		0	0	2406	0	163	2569	24	
201/55/159/3	2		0	0	224	0	15	238	119	
201/55/161/3	9		0	0	1394	0	91	1485	165	
201/55/161-3	4		0	0	259	0	17	276	69	
201-20	1		0	0	55	0	4	59	59	
201-20-190-0	0		47880	0	0	0	0	47880		
201-20-569-0	0		564	0	0	0	0	564		
201-20-724-1	0		0	0	0	0	0	0		
201-20-724-2	0		2000	0	0	0	0	2000		
201-20-997-3	17		0	0	2371	0	155	2527	149	
201-24-036-0	0		50560	0	0	0	0	50560		
201-24-038-0	0		287238	0	0	0	0	287238		
201-24-039-0	0		0	0	0	0	0	0		
201-24-040-0	0		0	0	0	0	0	0		
201-24-041-0	0		0	0	0	0	0	0		
201-24-042-0	0		0	0	0	0	0	0		
201-24-043-0	0		0	0	0	0	0	0		
201-24-044-0	0		0	0	0	0	0	0		
201-24-045-0	0		0	0	0	0	0	0		
201-24-046-0	0		0	0	0	0	0	0		
201-24-048-0	0		0	0	0	0	0	0		
201-24-049-0	0		0	0	0	0	0	0		
201-24-050-0	0		0	0	0	0	0	0		
201-24-052-0	0		0	0	0	0	0	0		
201-24-053-0	0		0	0	0	0	0	0		
201-24-057-0	0		0	0	0	0	0	0		
201-24-058-0	0		0	0	0	0	0	0		
201-24-059-0	0		0	0	0	0	0	0		

This worksheet shows a bird's eye view of the details for each component. As shown in the work sheet, the details are component name, quantity produced, opening W.I.P, Raw Material cost, Pre-manufacturing cost, Manufacturing Cost, Cost of Quality Control, Overheads, Total Product Cost, Cost per Unit, Closing W.I.P, Sale Value and Margin. The M.I.S will help the Management to take some critical decision like Make or Buy, Process or Outsource, Continue or Abandon etc.

Sample Machine Performance Report

Machine Performance Report-Graph



The above worksheet shows how the machines are working. This graph compares the installed capacity with the actual machine performance. This graph also shows whether the machine was underutilised or overutilised. This graph is also a kind of M.I.S for the Management to know the performances of the machines installed.

Benefits

The System aids in monitoring a company's costs and in providing management with information on operations and performance. Specific benefits include:

- Cost Ascertainment
- Cost Control
- Cost Reduction
- M.I.S for Top Management