

Industry: Manufacturing - Plastics

Operational Portfolio:

- Blow Molding Bottles, Jerry Cans, Jars, Floaters, Buoys
- Injection Molding Round and Rectangle Containers, Caps & Closures, Pipe Spacers, End Caps, Crates.
- Rotational Molding Water Storage Tanks, Fuel Storage Tanks, Bins, Planters, Material Handling Products, Pallet Bins, Wheel Barrows, Pallets, Kiosks.
- Pipe Extrusion PVC Pressure Pipes, PVC Sewage & Drainage Pipes, PVC Conduit Pipes, HDPE Polypipes (High & Low Pressure), Gas Pipes, Borewell Pipe Casings & Screens, Garden Hose Pipes, Ball Point Pens, etc.
- Product Development Center AutoCAD Product design, Prototype Building, Mold Development, Mold Modifications, Fabrication of Critical Spares, Custom Designed Product Development Services, TBS Approval Services, etc.

Solution: Tally.ERP 9 – Enterprise Manufacturing Solutions

Solution Overview

- Design, Development & Implemented complete **Manufacturing Process** - includes detailed Product Master that has Volume (Cubic Centimeter) Product Weight, Cycle Time (seconds), Ideal Machines & Unlimited Multiple BOM Classes with alternate/substitute raw materials. Production Process Transactions such as Sales Order, Work Order Material Issue, Production Voucher, Quality Control & Production Gain/Loss
- Design, Development & Implemented complete **Manufacturing Reports** – Work Order Register, Production Work In Progress, Daily Production, Finished Goods Transfer & Material Reconciliation.
- Design, Development & Implemented complete **Balance Scorecard / Measures** – is a key performance indicator tool for measuring whether the smaller-scale operational activities of a company are aligned with its larger-scale objectives in terms of vision and strategy. These measures are Machine based machine performance reports such as **Machine OEE – Overall Equipment Effectiveness, Machine MTTR – Mean Time To Repair, Machine MTBF – Mean Time Between Failure**. Sales Order Performance Reports such as **OTEFIF – On Time Error Free In Full. Inventory and Customer performance measures such as I\$D - Inventory Dollar Days & T\$D - Throughput Dollar Days**
- **** Some of the reports / measures here are suggested for those who follow lean manufacturing and / or practiced by fortune 500 companies including Toyota and Indian Conglomerate Aditya Birla Group**

Client Business Solution Situation

- Customer have been using Tally for their accounting solutions for several years
- Customer was seeking a solution that is cost effective, robust, easily deployable & scalable but also combines the ease of use and familiarity
- Customer before opting for Tally based solution also has evaluated and assessed ERP products such as SAP Business One and Navision
- Customer has successfully implemented Gemba Kaizen and now follows Lean Manufacturing

Tally.ERP 9 – Solution Deployment

- Total 180 Man days to Design, Develop & Implement
- Total Project Team Strength 6 Members (4 From Client, 2 From Tally Solution Provider) consisting Strategy & Functional Expert, Production Floor Expert, Tally Expert & Tally TDL Experts
- Calendar Period to Complete the project - 3 Months
- Number of Locations – 4
- Number of Users - 40+

Production Process – A Glance

- Product Master

Stock Item Alteration		Manufacturing - Demo		Ctrl + M	X
Name: FG Bottle Stand, Coca Cola Red					
(Units)					
Under Category: Fg Bottles Other Products		<u>Tax Information</u>		<u>Behaviour</u>	
Units: Pcs		Rate of Duty (eg 5): 0		Costing Method: Avg. Cost	
Volume (Cubic Centimeter):			1 more ...	Market Valuation Method: Avg. Price	
Product Weight(g): 940		<u>Name of BOM Class</u>		Ignore Diff. due to Physical Counting	? No
Cycle Time(s): 86				Ignore Negative Balances	? No
Alter National TVC: ?		Recipe 1		Treat all Sales as New Manufacture	? No
Alter Standard Rates: ? No		Recipe 2		Treat all Purchases as Consumed	? No
Ideal Machines:	Machine 715 Machine 716 Machine 717			Treat all Rejections inward as Scrap	? No
		4 more ...			
		Quantity	Rate per	Value	
Opening Balance		183 Pcs	1,716.67 Pcs	314,151.51	

BOM Master

Components of Unit of manufacture				
FG Bottle Stand, Coca Cola Red 1 Pcs				
Item	Location	Quantity Units	Use Substitute Items	Criteria
BM 100PE by BOMBA Sub222 Half N/S Raw Materials		0.0921 Kgs	Yes	Positive Stock
BM 100Red Finw PPS200L2 Half N/S Raw Materials		0.0932 Kgs	No	

BOM Criteria List

Higher Cost
Least Expiry
Lower Cost
Maximum Expiry
Positive Stock

- Machine Master

Machine Master Alteration		Manufacturing - Demo
Name (alias)	Machine 701	
Under	Line 2 (Low Tonnage)	
Allow Storage of materials Used as Machine	? Yes	
	? Yes	
Machine Capacity in Tons	250	Used for Other Processes? No
Machine available hours	24	
Machine Hour Rate	160	

- Mold Master

Mold Master Alteration		Manufacturing - Demo	
Name (alias)	Mold-10ltr Lid Double Lock		
Under	<input type="checkbox"/> Primary		
Allow Storage of materials Used as Mold	? No ? Yes		
Mold Capacity (Pcs)	3840	Used for Other Processes? No	
Mold available hours	1440		
Mold Hour Rate	160		
Mold Cavities (Nos)	0		

- Product / Machine Cycle Time Master

Machine	Mold	Cycle Time(in Seconds)
Machine 721	Mold-20ltr Lid Light Duty	40
Machine 712	Mold-10ltr Lid Double Lock	22
Machine 712	Mold-4ltr Pail Amboni	28
Machine 712	Mold-4ltr Lid Amboni	28
Machine 712	Mold-4ltr/5ltr Handle	10
Machine 712	Mold-150cc Medical Container	7
Machine 712	Mold-150cc Medical Lid	8
Machine 712	Mold-600cc Medical Container Old	30
Machine 712	Mold-600cc Medical Container New	9
Machine 712	Mold-600cc Medical Lid-Keko	9
Machine 712	Mold-900cc Medical Container	10
Machine 712	Mold-600/900cc Medical Container Lid	5
Machine 712	Mold-1100cc Medical Container	28
Machine 712	Mold-600/1100cc Medical Lid OLD	15
Machine 712	Mold-5ltr Lid	20
Machine 712	Mold-5ltr Pail	30
Machine 712	Mold-Simtank Pins	8
Machine 710	Mold-20ltr Lid Light Duty	25
Machine 710	Mold-20ltr Lid Amboni 1	70
Machine 710	Mold-20ltr Lid Amboni 2	70
Machine 710	Mold-20ltr Lid Double Lock	35
Machine 710	Mold-10ltr Lid Double Lock	22
Machine 710	Mold-4ltr Pail Amboni	28
Machine 710	Mold-4ltr Lid Amboni	24
Machine 710	Mold-4ltr/5ltr Handle	10
Machine 710	Mold-600cc Medical Container New	9
Machine 710	Mold-600cc Medical Lid-Keko	9
Machine 710	Mold-900cc Medical Container	10

181 more...

Production Process

Production Process
Work Order
Material Issue
Production Voucher
QC Process Transfer
Production Transfer
Production Gain Loss
Other Transfers
Powder Mix Voucher
Quit

- Work Order

Work Order		No. WO/00450	1-Jan-2009 Thursday	
Current User Name		Administrator		
Optional Work Order				
Order No. :	CS0-38		Customer Name :	Coca Cola Kwanza Ltd- Sales
Name of Product :	FG Crate, Coca Cola 24x350 MI (EAT 6)		Location :	Production Shop Floor Qty: 1,000 Pcs BOM List
Name of Mold :			Name of Machine :	Recipe 6
Std Weight(Grams):	1,860			
Cycle Time to produce 1 Unit of :	FG Crate, Coca Cola 24x350 MI (EAT 6)		Seconds	
Total Time to produce 1,000 Pcs Of :	FG Crate, Coca Cola 24x350 MI (EAT 6)		Hours	
List of BOM				
Recipe-1				
Recipe 10				
Recipe 11				
Recipe 12				
Recipe 13				
Recipe-2				
Recipe-3				
Recipe-4				
Recipe-5				
Recipe-6				
Recipe 7				
Recipe 8				
Recipe 9				
Components (Consumables)				
Name of Item	Location	Quantity	Rate	Amount
HD HDPE Cans (1000MM) Regal Hal No.5 Rec Materials		1,766,800 Kgs	2,315.70/Kgs	4,133,842.50
Regal HDPE Cans Regal Hal No.5 Rec Materials		37,2000 Kgs	250.00/Kgs	9,300.00
HD Cans Recal Form (1250MM) Hal No.5 Rec Materials		37,2000 Kgs	14,805.19/Kgs	550,753.07
Total Addl. cost				:
Effective Cost				4,693,895.57
Effective Rate				4,693.895/Pcs
Narration :				

Manufacturing Reports – A Glance

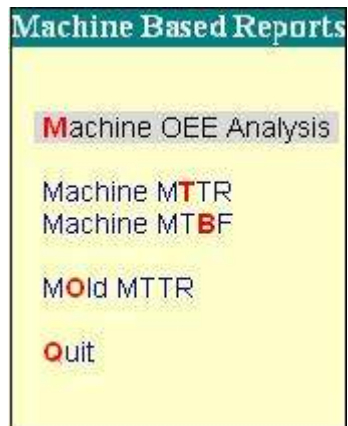


Management Reports – A Glance

Management Related Reports

- Dollar Days Analysis
- Machine Based Reports
- Sales Order Performance
- PCM Analysis
- Quit

- Machine Based Reports



- Machine OEE

Machine OEE Report		Manufacturing - Demo						Ctrl + M				
Period:1-Aug-2008 to 31-Aug-2008						For : Machine T12						
		Output			Availability			Quality				
Machine Name	OEE %	Total PCS/Hr	Rated Capacity/Hr	%	Productive Hrs	Standard Hrs	%	Good Quality	Total PCS	%		
Machine T12	62 %	121.29	171.82	71 %	412	461	89 %	49,507	49,970	99 %		

- Machine Mold OEE

Machine - Mold OEE Report				Manufacturing - Demo		Ctrl + M	
Machine Name : Machine T12				Period:1-Aug-2008 to 31-Aug-2008			
Mold Name	OEE %	Output Rate %	Availability %	Quality Rate %	Gross Available hours	Planned Downtime hours	Unplanned Downtime hours
							Show more...
Mold-10ltr Lid Double Lock	51.7 %	56.9 %	91.5 %	99.2 %	638.0	186.7	38.4
Mold-4ltr Lid Amboni	2.8 %	2.8 %	99.6 %	99.3 %	744.0	16.4	3.1
Mold-600cc Medical Container New	65.7 %	66.8 %	77.0 %	98.3 %	106.0	72.7	7.7

- Machine Mold OEE

Machine - Mold OEE Report				Manufacturing - Demo			
Machine Name : Machine 712				Period:1-Aug-2008 to 3			
Available Time For Production	Ideal Cycle Time Seconds	Actual Cycle Time Seconds	Ideal Units that can be Produced	Actual Units Produced	Total Good Quality Units	Total Defective Units	Total Units Produced
... 8 more							
412.8	22.0	38.6	67,555.6	38,465.0	38,172.0	293.0	38,465.0
724.5	28.0	1,003.5	93,150.0	2,599.0	2,580.0	19.0	2,599.0
25.7	9.0	10.4	10,264.0	8,906.0	8,755.0	151.0	8,906.0
1,163.0	59.0	1,052.5	170,969.6	49,970.0	49,507.0	463.0	49,970.0

- Machine MTTR

MTTR Report			
Manufacturing - Demo			Ctrl + M
Period: 1-Aug-2008 to 31-Dec-2008			For : <input type="checkbox"/> All Items
Machine	Mechanical(MTTR in Hrs)	Electrical(MTTR in Hrs)	Total (MTTR in Hrs)
Chiller			
Machine T01	0.25		0.25
Machine T10	1.48	4.08	1.92
Machine T12	0.33	10.51	7.96
Machine T13	1.20	1.88	1.54
Machine T15	1.75	6.36	4.82
Machine T16	6.39	3.74	4.46
Machine T17	0.22	1.33	1.22
Machine T18	0.67	4.34	3.42
Machine T19	0.49	4.22	3.39
Machine T20	0.94	3.42	2.65
Machine T21	0.83	5.67	4.60
Machine T22	0.54	0.81	0.70

- Mold MTBF

MTBF Report		Manufacturing - Demo		Ctrl + M - X
Period: 1-Mar-2008 to 31-Dec-2008				
Machine	Mechanical(MTBF in Days)	Electrical(MTBF in Days)	Total (MTBF in Days)	
Chiller				
Machine 701			40.00	
Machine 710	9.83	86.00	18.13	
Machine 712		28.50	22.80	
Machine 713	16.50	115.00	37.00	
Machine 715	14.29	9.00	10.47	
Machine 716	19.00	14.22	13.83	
Machine 717		11.60	10.55	
Machine 718	22.25	13.00	14.60	
Machine 719	68.00	9.00	13.00	
Machine 720	15.00	7.45	8.88	
Machine 721	16.67	12.20	12.29	
Machine 722	68.00	9.50	15.63	

Sales Order Performance

- OTEFIF – On Time Error Free In Full

OTEFIF Report Sales			Manufacturing - Demo				Ctrl + M
Period:1-Jul-2008 to 20-Oct-2008							
SL No	Order No	Customer	SKU	Order Date	Delivery Due date	Lead Time	Order Quantity
				OnTime	Error Free	In Full	OTEFIF
1	INJ/CSO. 13	Sarangeli Breweries Ltd.	KGs, 330 ml, 5-8-2008	5-8-2008	2-9-2008	28	50,000 Pcs
				80 %	100 %	100 %	40 %
2	INJ/CSO. 4	Tanzania Breweries Ltd	KGs, 330 ml, 8-7-2008	8-7-2008	9-11-2008	124	160,000 Pcs
				100 %	100 %	71 %	71 %
3	INJ/CSO. 41	Sadolin Paints (T) Ltd	KGs, 100 ml, 18-9-2008	18-9-2008	15-10-2008	27	3,000 Pcs
				100 %	100 %	100 %	100 %
4	INJ/CSO. 41	Sadolin Paints (T) Ltd	KGs, 100 ml, 18-9-2008	18-9-2008	15-10-2008	27	3,000 Pcs
				100 %	100 %	100 %	100 %
5	INJ/CSO. 40	Sunkist Bakery Ltd	KGs, 100 ml, 11-9-2008	11-9-2008	11-9-2008	0	100 Pcs
				0 %	100 %	100 %	0 %
6	INJ/CSO. 40	Sunkist Bakery Ltd	KGs, 100 ml, 11-9-2008	11-9-2008	11-9-2008	0	100 Pcs
				0 %	100 %	100 %	0 %
7	INJ/CSO. 40	Sunkist Bakery Ltd	KGs, 100 ml, 11-9-2008	11-9-2008	11-9-2008	0	100 Pcs
				0 %	100 %	100 %	0 %
8	INJ/CSO. 40	Sunkist Bakery Ltd	KGs, 100 ml, 11-9-2008	11-9-2008	11-9-2008	0	100 Pcs
				0 %	100 %	100 %	0 %

126 more ...