

SAKURA ENGINEERING AND PROJECTS

Is a fast growing company which holds expertise in **Turnkey Engineering Consultancy and Facility Execution**
We are a **one-stop solution** to all your Engineering requirements.

SERVICE OFFERINGS

- ❑ Industrial Engineering / Manufacturing Engineering
- ❑ Architectural and Structural Engineering
- ❑ MEPF / Utility Planning
- ❑ Project Management Consultancy
- ❑ Chartered Engineer Services



TEAM

Core Team.

❑ **Mr. Ravindra Borawake –Technical Director**

He is an Implantation of Industrial engineering part in Mahindra & Mahindra with expertise Lean Manufacturing, Industrial Engineering, Manufacturing Engineering with a experience of 40 years.

❑ **Mr. Namdev Kharape - Director**

He is a Chartered Engineer with expertise in Factory Planning and Industrial Engineering ,Project Management in Structure & MEPF services with a experience of 15 years

❑ **Mr. Umesh Sonar**

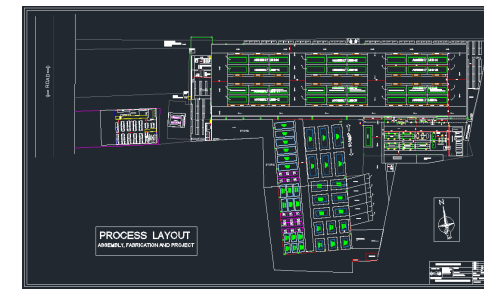
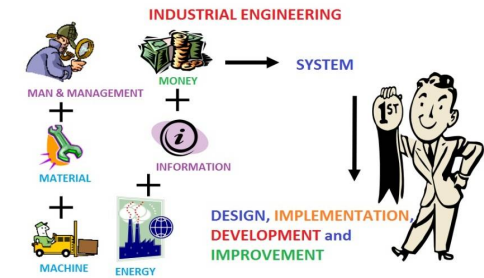
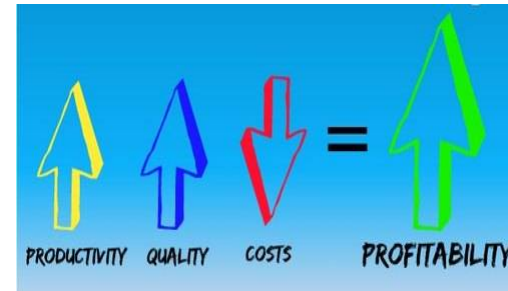
He is Mechanical Engineer having 16 years experience in Automotive Industry. Having expertise in Process Planning, New Line set up, Logistics, CKD and Process Documentation.

❑ **Mr. Sudhir Patil**

Expertise in Project management, Material Handling , warehouse , plant layout 6 years

INDUSTRIAL & MANUFACTURING ENGINEERING

- I. Industrial Engineering
 - a. Manufacturing Industry
 - b. Logistic Industry
 - c. Service Industry
- II. Process & Plant layout Design and Execution
 - a. Greenfield
 - b. Brownfield
- III. Facility Planning
 - a. Jigs & Fixture
 - b. Material handling System & Equipments
 - c. Special Purpose Machine
- IV. Documentation
 - a. Tender/Pre-Tender documents
 - b. Project Budgeting
- V. Industrial Training
- VI. Drawing and Designing



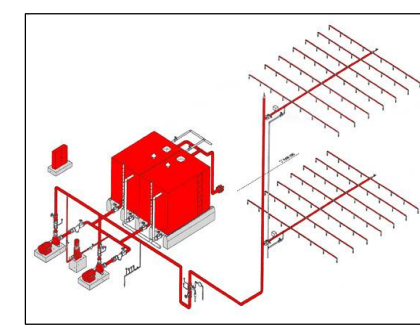
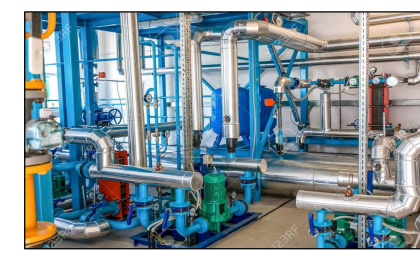
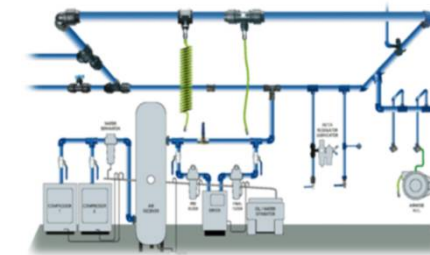
ARCHITECTURAL & STRUCTURAL ENGINEERING

- I. Architectural Services
 - a. Project Planning - Master planning, Space planning and Architectural Design
 - a. Design & Development
 - b. Construction Documents
 - c. Bidding & Negotiation
 - d. Construction and Contract Administration
 - e. Substantial Performance of Construction / Occupancy Certificate
- II. Structural Services
 - a. Structural Designs of the Architectural Concept
 - b. Steel Structure Designs with Fabrication Drawings
 - c. Structural Audit of Structures and Infrastructure
 - d. Valuation of Real Assets
 - e. All Pre Tendering Activities of civil works
 - f. Estimates & BOQ's of all civil works
 - g. Fit-out and Facility Design
 - h. All Structural Allied Services
 - i. Root cause Analysis



MEPF

- I. Electrical System – Design and installation
 - a. Design (HT & LT part) and BOQ preparation
 - b. Licensing & Compliance – MSEDCL, CIEG
 - c. Installation as per design
- II. Pneumatic and Water Piping Work
 - a. Design & Installation
- III. Fire System – Design, Installation with Licensing/NOC
 - a. Fire Hydrant & Sprinkler system
 - b. Fire alarm & detection system
 - c. PA system & Talk Back system
- IV. HVAC System
 - a. Design & Installation
- V. STP/ETP/RO
 - a. Design & Installation



PROJECT MANAGEMENT CONSULTANCY

- ✓ Evaluation, selection and implementation of micro based project management systems.
- ✓ Development of management information systems for monitoring and controlling project progress.
- ✓ Simulation and analysis of project operations.
- ✓ Consultation with programmers and system analyst regarding requirements for project management systems

Pre Project

- Conceptual Services
- Design Development Phase Services
- Contract Document Phase Services
- Bidding Phase

During Project

- Contract Document Phase Services
- Review Contractor's "As Planned" project schedule and procurement schedule. Monitor timeliness of Architect/Engineer responses to "Requests for Information" (RFI). Develop and maintain a "Punch List" in conjunction with Architect/Engineer.

Post Project

- Project Close-Out
- Project Defects



CHARTERED ENGINEER SERVICES

Assignments related to Chartered Engineer certificate

❑ In Mechanical Division –

- ✓ EPCG Certificate
- ✓ Machine Installation Certificate
- ✓ Tool Life Certificate
- ✓ Valuation / Estimate Verification
- ✓ Energy Audit

❑ In Civil Division

- ✓ RCC and Structural Building or Shed Stability Certificate
- ✓ RCC and Structural Building or Shed Audit
- ✓ Valuation / Estimate Verification



SAKURA
ENTERPRISES

Work Expertise

□ Case study

Logistics Manpower Estimation

Longer cycle activities

Scope:

- ✓ Mahindra Chakan Plant- 13 Manufacturing sheds

Steps we followed:

- ✓ Study existing processes and develop PFEP
- ✓ Evolve PMTS based on MOST
- ✓ Balance the work load and create groups with optimum utilizations

Benefits:

- ✓ Men per JPH: 27% improvement (for 600+ men)

Opportunities

- ✓ Re-layout the stores wrt to 'point of consumption', more Kit-bin.



PFEP, Work measurement, VSM, NVA identification and elimination

Case study

Productivity Improvement - MOST

	As on 1 April - 16				As on 1 Jan -17			
SHOP	MP	JPH	MP per JPH		MP	JPH	MP per JPH	% reduction
P	91	4	22.75		80	5	16	12.08
Q	74	18	4.11		42	18	2.33	43.24
R	111	18	6.17		78	18	4.33	29.72
S	148	18	7.83		91	18	5.06	38.51
A1	13	4	3.25		10	5	2	23.07
A2	16	13	1.23		13	13	1	18.75
A3	14	11	1.27		11	11	1	21.42
A4	18	8	2.25		13	10	1.3	27.77
D1	17	15	1.13		12	13	0.92	29.4
C3	13	4	3.25		8	4	2	38.46
J1-2 cycl	34	18	1.89		31	20	1.55	8.82
J2	19	18	1.06		14	18	0.77	26.31
J3	24	15	1.60		13	15	0.86	45.83

27%
Reduction on
600 men

□ Case study

Repos IOT India Pvt Ltd, Chakan

Manufacturers of Mobile Petroleum Vehicle

Scope:

- ✓ Define production capacity of existing space of 3 Acres

Steps we followed:

- ✓ Study existing processes and CT (Given by RIPL)
- ✓ Balance the work load and create groups with optimum utilizations

Benefits:

- ✓ Economic layout for minimum throughput time- Mixed type (Product and Process)
- ✓ Area utilization 0.138 Qty/Yr/SqMtr increased to 0.385 Qty/Yr/SqMtr (2.8 Times improved)
- ✓ By Work Balancing save cost up to 3CR

Opportunities

- ✓ Define VA, NVA and CT of each process and prepare smooth flow (30%)
- ✓ Material planning: Reduction of non moving inventory and create space for JIT
- ✓ Define work place layout and facilities
- ✓ Reduction of component variability

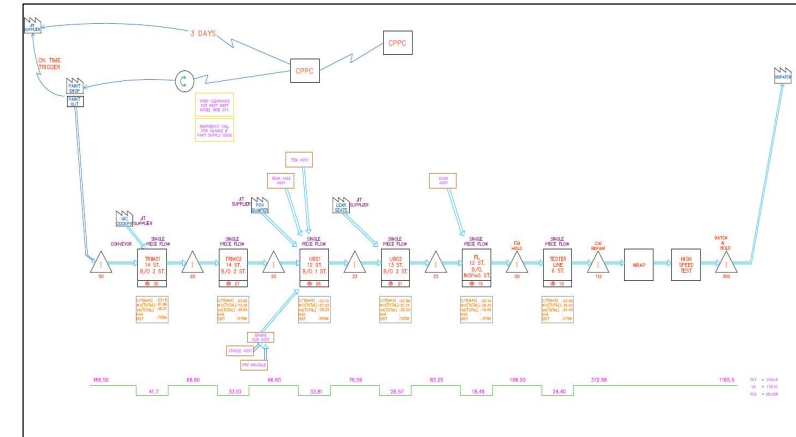


□ Case study

Mahindra & Mahindra, Chakan

VSM - Duration May 16 to August 16 (4 Months)

Shop	Space released	Inventory cost reduction	MP cost reduction
XUV TCF	1452 SqM	Rs 49 L	Rs 18 L
R block	238 SqM	Rs 10 L	Rs 2 L
Press shop	200 SqM	Rs 79 L	-
Engine-washing	30 SqM	Rs 8 L	-



Case study

Forbes Marshall, Chakan

(Focus made on SSD, Boiler)

VSM - Raw Material Stores

SrNo	Base Data (Aug, Sep 21)	Units/ day	Items/ Unit	Existing Method (Men)	VE Suggestions (Men)	VE+FM Suggestions (Men)
1	GRR Register	140.33 GRR/ day	1.90 Items/ GRR	6.88	4.59	4.80
2	Inter company GRR	11.15 GRR/ day	1.61 Items/ GRR	0.51	0.31	0.33
3	I.V. Acknowledgement	119.65 IV/ day	6.28 Items/ IV	5.39	5.30	4.10 *
4	Boiler Receipt	38.71 Receipts/ day	2.21 Items/ Receipts	2.39	1.73	1.79
5	Return to Stores (Opn 20B)		200 Items/day	0.41	0.15	0
	Total basic			15.57	12.08	11.02
	With utilization 80%			19.47	15.10	13.77
	With Absenteeism 12%			22*	17	16

*Current manpower is FM 9+ Contract 15+ Apprentice 2= 26 Men
VE Suggestions point 3 and 4- for further improvements will result to 3 men*

** add 4 men for Electronics and other verticals*

*(1) Separate pallets for each item
(2) Part Number on casting/ forging
-- Counting and searching easy
(3) Kits for standard issuance
(4) Re-layout for 13% items for 80% issuances*

*(1) Eliminate RTS.
(2) AGV for I.V. issue*

27%

□ Case study

Jayashree Polymer Pvt Ltd, Hosur

Scope:

- ✓ Plant layout design, Facility planning, MEPF and Project Management consultancy

Steps we followed:

- ✓ Study existing processes of 3 plant for design process layout
- ✓ Balance the work load for in plant and outsource activity
- ✓ Design utility (Air/Water/Electrical) as per requirements

Benefits:

- ✓ Economic layout (Product and Process) – Optimization of resource
- ✓ Better control on overall activity
- ✓ Facility design as per process improvement plan

Opportunities

- ✓ Define VA, NVA and CT of each process
- ✓ Material planning: Reduction of non moving inventory and create space for JIT
- ✓ Define work place layout and facilities
- ✓ Space utilization

Plant Set-Up – Combine 3 Existing plant



High Bay Racking – Solutions



High Bay Racking
System

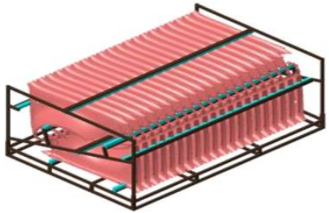


Trolley Type Rack



FIFO Roller Racks

Packaging Solutions and Facility



Pallets for Press Parts



Wire Mesh Pallet



Inspection Table



Base Pallet



Canteen Table



Conveyor

Industrial Trading



❑ Industrial Plastic Items



❑ Material Handling



❑ Packaging



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08484982612



sales@sakuraent.co.in



Sales Office – F-5 , RH 194,
G Block MIDC Chinchwad