Rated by:_____

Tour Date:_____

READ A PLANT FAST

Plant:_____

KLMANAGEMENT
Excellence in Operations

Elements	Measure	Factors	Poor 1	Below Average 2	Average 3	Above Average 4	Excellent 5	Scores	"Yes" or "No" Assessment
FOUNDATION	Customer Satisfaction	Customer ratings, quality certifications & ratings, warranty & product liability costs, employee knowledge of external and internal customer requirements, visitor materials & welcome, market share, rate of new product introduction & acceptance					5	5	Are visitors welcomed and given information about plant layout, workforce, customers, and products?
	People teamwork, skill level, & motivation	Team problem solving capability & history, employee willingness to talk about customers, products, & company; uniformity of dress; communications & recognition environment; sales per employee; team meeting areas & performance charts; training investments, educational support, benefit package & costs, unionization activity, workforce-management relationship, community support, company-supported activities (picnics, open houses, sports teams, local involvement, employee knowledge of & support of customers & business, work instructions standards		2				2	Are ratings for customer satisfaction and product quality displayed?
	Safety, environment	Safety & environment record, place for everything & everything in its place, cleanliness of operations--exterior & interior, floors, equipment, spills, leaks, noise, lighting, paint, dust, air quality, employee dress, restroom conditions, desks & workbench order & cleanliness, degree of "spiffing" for visitors (negative), inventory order, material flow order & cleanliness, color & other coding for safety & order					5	5	Is the facility safe, clean, orderly, and well lit? Is the air quality good and noise levels low?
	Visual Management	Operations mission & performance objectives visible; visibility of labeling & coding of product lines, inventory, equipment, & tooling; color coding & differentiation ; visibility of customer identification & ratings; visibility of charts tracking operation's & teams' safety, quality, & productivity, control room showing status of total operation, customer order & order fulfillment visibility, Kanban deployment, inventory count can be made visually, machines & tool labeling--costs, preventive maintenance visibility, product displays, audit results visible				4		4	Does a visual labeling system identify and locate inventory, tools, processes, and flow?
	Total Productive Maintenance	TPM is continuously improved through kaizen activities and are predictive. Operators are involved in daily maintenance and help set targets. OEE is known. Maintenance and operations working jointly to improve. Preventive maintenance system, setup change times, integrated go-no go quality checks, machine performance data availability, knowledge & utilization of bottleneck processes, process control capability, total asset utilization, operator routine maintenance, maintenance staff & teams, MRO replenishment efficiency, tool & fixture orderliness, cleanliness, & storage location, equipment improvement policy, equipment technology strategy				4		4	Does everything have its own place, and is everything stored in its place?
MULTI-FUNCTIONAL WORKER	Man/machine separation	no material is found outside designated areas.		2				2	Are up-to-date operational goals and performance measures for those goals prominently posted?
	Cell/line layout	is stored in nondedicated, flexible storage locations	1					1	Are production materials brought to and stored at line side rather than in separate inventory storage areas?
	Plant design	Continuous 1x1 flow through the entire plant at the same production rate, i.e., "synchronized"	1					1	Are work instructions and product quality specifications visible at all work areas?
	Skill building	Advanced knowledge training occurs and is linked to advancement opportunities. A "prehire" training program exists to certify potential employees	1					1	Are updated charts on productivity, quality, safety, and problem solving visible for all teams?
CONTINUOUS IMPROVEMENT	Standard operations	Operation instruction forms are used for training operators and standardized work is used for frequent improvement activities. Operators assist with developing SOPs and standardized work	1					1	Can the current state of the operation be viewed from a central control room, on a status board, or on a Obeya ?
	Problem solving capability	The root cause and countermeasures of all problems are identified through PDCA approach. Teams are formed to analyze a wide variety of problems and operators can lead activities. Employee involvement is high and virtually no problems reoccur				4		4	Are production lines scheduled off a single pacing process with appropriate inventory levels at each stage?
	Mistake-proofing	Visual displays for monitoring processes and error-/mistake-proofing to automatically stop "out-of-control" processes are used throughout the facility to immediately make abnormalities "transparent" to all		2				2	Is material moved only once as short a distance as possible and in appropriate containers?
	Quality System Deployment	Quality certification, quality process & measurement at each process & for each product, scrap & rework, problem solving process, product & customer quality data, quality ratings, new product startup process, continuous improvement environment, degree of focus on customer satisfaction , implementation of best practices, degree operational strategies are linked to corporate strategy, total quality system well-developed & deployed		2				2	Is the plant laid out in continuous product flow lines rather than in "shops"?
	Line stop and call (Andon)	There are clear line stop procedures in place and the operators are empowered to stop the line the instant an abnormality occurs. The quick response team is required to answer within 5 minutes			3			3	Are work teams trained, empowered, and involved in problem solving and ongoing improvements?
JUST-IN-TIME	Pull system	Production is driven completely by "Pull" signal from downstream processes. Daily demands are given to packaging only and drawn back up the line using a simple signal system (i.e., kanban card). Withdrawal is based on the kanban cycle. WIP is strictly limited and system is highly disciplined			3			3	Do employees appear committed to continuous improvement?
	Takt time	Pace of production is established based on the optimal Takt time. Takt time is calculated from live customer demand and used to balance work combinations. Each worker/ operation is within the optimal Takt time			3			3	Is a timetable posted for equipment preventive maintenance and continuous improvement of tools and processes?
	Scheduling system	Production is perfectly leveled to customer demand and based on Takt time.Degree of scheduling to customer order, order process efficiency, product line scheduling at single point, scheduling buckets (each order, hourly, daily, weekly, or monthly), supplier scheduling & delivery, replenishment versus order fulfillment, computer scheduling versus kanban, pull versus push systems, flow time efficiencies, backroom costs of scheduling, MRP costs, data entry costs				4		4	Is there an effective project management process, with cost and timing goals, for new product start-ups?
	Continuous flow	Coordinated 1x1 production occurs for all operations, as well as coordinated shutdowns for planned downtime. Traditional department processes (i.e., – filling molds) have been "right-sized" throughout the process. Product line versus shop layout, rolling carts pulled by tractors or by hand or conveyers versus forklifts, travel distances between processes, material movement responsibility--process owned or separate material staff, container size (forklift requirement?), containers designed for parts families, single versus multiple docks to minimize material travel, space utilization, goals for space use reduction				4		4	Is a supplier certification process--with measures for quality, delivery, and cost performance--displayed?
	Inventory & WIP Levels	WIP levels at each process, WIP in transit in plant, separate stores versus line side storage, number of inventory storage areas, finished product levels, total inventory to sales ratio, process cycle time to flow time ratios, countability of inventory, WIP movemend triggered by computer, material department or next process, theoretical versus actual flow times			3			3	Have key product characteristics been identified and fail-safe methods used to forestall propagation of defects?
	Supply Chain Integration	Number of suppliers, supplier release system--from inventory levels or customer order, supplier certification, sourcing policies--short-term or long-term, supplier quality ratings, delivery, & productivity objectives & history, new product development responsibility, responsibility for kitting parts, C-stock replenishment efficiency, supplier material scrap & rework, supplier cost-saving ideas implemented, supplier knowledge of lean					5	5	Would you buy the products this operation produces?

Note

Total number of "Yeses"