Supplier Presentation



M. Scott Crawford
Vice-President Financial and IT, Engineered
Materials, Esterline Co.

Scott Crawford has been associated with the Engineered Materials Group and Kirkhill-TA since 2006. He has been a CFO in the aerospace and defense industry for over 20 years. The Engineered Materials Group designs, develops, and manufactures high performance elastomer products for the aerospace, defense, and industrial markets. Operations include eight facilities including Kirkhill, TA Aerospace, Haskon Aerospace, and CSE. Kirkhill is the first SEA Stage-One Certified supplier and also the first to re-qualify that certification. Mr. Crawford earned his B.S. in Finance from Brigham Young University and his MBA from Arizona State University.









Kirkhill – TA Co.

Kirkhill Elastomers
Scott Crawford

SEA Lean Enterprise System



Prime EmpoweredSupplier Led



























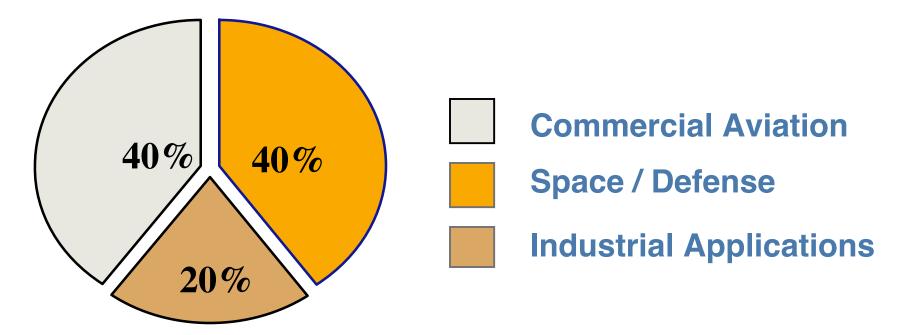








- A specialized manufacturing company principally serving Aerospace / Defense
- NYSE listed since 1968 "ESL"
- Sales revenue \$1.4B







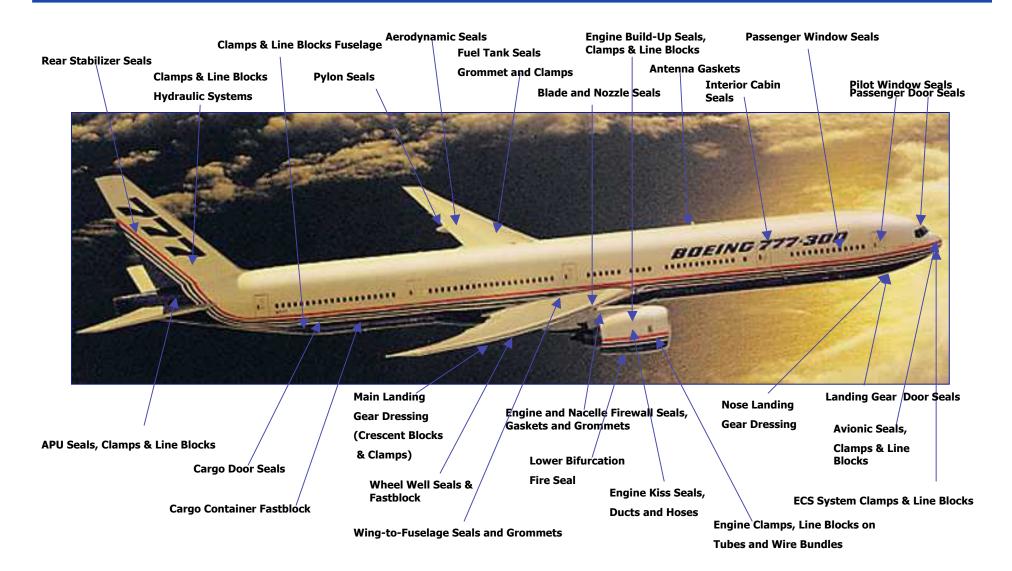
Overview





Engineered Materials Group Sealing & Clamping & Ducting





LEAN Journey- Big Undertaking

Waste Elimination



6 Full Time Lean Specialists plus 25 People 6-Sigma Certified GB & BB





<u>Historical Lean Timeline</u>

Embarked on Lean with HLS February 2005

Engaged with SEA
 October 2005

SEA LES Training for Management April 2006

SEA Roadmap Certifications (9 execs) 2006 - 2007

SEA Managing Process Improvement August 2007

SEA Audit Stage 1 October 9-11 2007

SEA Certified Stage 1 Level 3 PMM October 12, 2007

SEA Re-Certified Stage 1 Level 3 PMM January 2009

TA Aerospace – Sister Company – SEA Certified January 2009



Esterline Kirkhill-TA Lean Journey



		FY2004	FY2008	
•	Sales Revenue	\$100M	\$154M —	54% Growth!
•	Sales/ee	\$84K	\$125K —	49% Improvement!
•	Inventory Turns	3.4	4.2	24% Improvement!
•	On time Delivery	39%	81% ——	100+% Gain!
•	AR Days	59	49 ——	30% Gain!
•	Quality PPM's	28,948	10,776 ———	62% Improvement!
•	Floor Space Saving	gs 33,6	00 Ft2	Needed Space !!
•	Financial Results		Great	ly Improved !!

2009 KIRKHILL-TA



FLIGHT PLAN	FY05	FY06	FY07	FY08	FY09	
	Actual	Actual	Actual	Actual	Plan	Key Actions
ROI % Increase	xxx	xxx	xxx	xxx	xxx	Mexico Startup Reduced inventory Reduce AR
PROFITABILITY Sales growth Earnings growth	19% xxx	9% xxx	13% xxx	6% xxx	2% Xxx	Expand global market share Improve dev. & launch processes Scrap reduction thru six sigma
LEAN Inv Turns Sales per ee	3.8 99K	4.0 105K	4.0 110K	4.2 125K	4.6 125K	Implement TPS/HLS/PES Lean enterprise company wide Adopt SEA Phase I-II-III, PMM 3+
DELIVERY Line Items	61%	68%	77%	85%	90%	PC&L with level loading Involve key suppliers in Lean VSM Expand VSM's to include customers
QUALITY PPM's	22,100	21,350	16,800	10,776	<10,000	Move inspection Resp. to Ops Expand use of 6-Sigma processes Continue equipment modernization
EMPLOYEES Training Hrs Per EE Safety IFR	ETP- 60% 5.9%	ETP- 60% 5.9%	ETP- 80% 5.5%	ETP- 80% 5.4%	40-H 100-M <5.0	Obtain a 4 th State training grant Revise and update safety programs Increase training hours per ee A. Maintain high communications

SEA Roadmap

	Stage One	Stage Two	Stage Three
	Stabilization	Supply Chain Integration	Sustainability
Leadership & Culture	1.1.1 Strategic Planning Process 1.1.2 Leadership Communication Process 1.1.3 Organizational Performance Review Process 1.1.4 Continuous Improvement Management Process 1.1.5 Workforce Development Integration Process	1.2.1 Goals Deployment & Review Process 1.2.2 Values Deployment Process 1.2.3 Supply Chain Integration Process	1.3.1 Organizational Learning Process 1.3.2 Organizational Assessment Process
Workforce Development	2.1.1 Job Skills & Cross-Training Certification Process	2.2.1 Continuous Improvement Process 2.2.2 Statistical Methods Process	2.3.1 Team Control Process
Operational Excellence	3.1.1 Kaizen Process 3.1.2 6S Visual Workplace Process 3.1.3 Quick Changeover/SMED Process 3.1.4 Material Management Process 3.1.5 Production Planning Process	3.2.1 Flow-Based Material Process 3.2.2 Mixed Model Cell/Line Design Process 3.2.3 Lean Suggestion Process 3.2.4 Total Productive Maintenance Process	3.3.1 Design of Experiments Process 3.3.2 Design to Cost Process 3.3.3 Six Sigma Projects Process 3.3.4 Six Sigma Design Process 3.3.5 Design for Manufacturability Process
Business Results	4.1.1 Inventory Turns 4.1.2 Sales/Employee 4.1.3 On-Time Delivery 4.1.4 Parts per Million 4.1.5 Process Maturity 3 and above	4.2.1 Cpk	4.3.1 Rolled Yield

3 Tracks plus Business Results - L&C, WFD, OE Stage 1 - 23 Key Business Processes to PMM Level 3







Lean Transformation 5-Year Plan

Phase III - Stage 3

Supply Value Chain: Order To Delivery

- Supply-Chain Integration Initiatives
- Production leveling and adherence scheduling plan.
- Purchased Parts Supermarkets.
- JIT Internal Supplier linkage.
- •FG Supermarket Strategy.

Phase II – Stage 2

Improve Process Capability

Operational Kaizen:

Phase I – Stage 1

Waste Elimination: Create Flow & Improve **Productivity**

Timeline

- Black-Belt Six-Sigma Statistical Problem Solving Techniques.
- •Green-Belt Problem Solving Techniques (DMAIC).
- Machinery set-up reduction and SMED Techniques.
- •Reduce process variation and standardize operation procedures
- Problem Solving (PDCA).
- Kaizen Leaders Training
- Balanced Standard Work.
- •TAKT image attainment and Process Cycle-Time Balance.
- Pull Systems (Kanban, Visual Replenishment, Two-Bins).
- Cross-Training and Flexible Manpower Cells.
- PFEP, POUT, and Delivery Material Routings.
- •Kaizen Methodologies: 3-5 day Events, Spot Activities, Kaizen Newspaper Problem Resolution.
- Process Linkage and Flow Sequence.
- Value Stream Mapping & 90-Day Improvement Plan
- •6"S" & Visual Factory deployment and sustaining program.

Year 1 Duration Plan

Jan Re-start Lean Journey

Jan - May Basic 6-S and Simple Kaizen focused on Waste Harris Lean Seminar, All Management Add 2nd Full Time Lean Engineer

Dec

Apr-Dec Supply Chain Systems for IC key Customers

Jun-Sep AC Model May-Aug Strategic F Sep HLS Milest Oct-Curr KTA Joins

May-Curr Formal sta

Oct Add 3rd Fu Nov-Dec SEA Asse: Oct-Dec Expand HI Start adopt

Jul-Dec ETP Train Nov TA Hires F

Year 2 Duration Plan

Jan-Curr ETP traini G. Mancill Jan-Mar AC SM-ME IC Moldine DP - Basic Start Admi Initiate Adr Mar HLS Semir Mar S. Lauten: Sr. Manag

Apr-Aug Strategic F Apr-Sep AC and CS AC PC&L IC Molding Establish E Doc Contro

First (2 - K

First SE A Quarterly Reports Initiated G. Mancilla SE A certified in Lean Leadership

Jul KE Lean steering Committee Formalized HLS Seminar & Milestone Review Sep

Next (6) Lean Leadership Awards (3-TA, 3-KE) Sep-Curr Haskon Fully Engaged

Warehouse Initiates 6-S Oct-Dec Added SBU & Adminiles AC Kaizen and Lean for Add Calender, Extrusion Add Q.A., Warehouse, M. Haskon Appoints Full Ti First Vendor Managed Ir

F. Serna SEA certifed i

Year 3 Duration Plan .lan Executive Lean Audit Ar Feb Add 4th Full Time Lean Jan-Mar Develop Standard PFEF Initiate Formal Site Plan ATK PES with S&M Kai: Jan-Jun Standard Glass Walls fo Develop Finished Good Jan-Sep ETP Training Ongoing Completed Current State

Mar H. Rubio, K. Fisher, S. SEA Self-Assessment Mar HLS Seminar and Lean Feb..lul Add Duct, Inflatables in Apr-Jun Develop Lean AC Engin Apr-Aug Strategic Planning Pro Apr-Oct Completed Future State Apr-Dec Major Completion of PFI All Admin Areas Adopte Feb - end Train Leaders in Six Sig

Train Selected Additions Mar-Jun Add 2 Additional Full Tir G. Mancilla SE A certifi Formalize Master Trains Implement Internal Lear L5 Managing Process

Mar- Sep Correct SEA Gap Anal

Lean 5 Year Plan

Recognition & Rewards System for Hourly Leads

TA Complete's Initial Skill Based Pay Implementation

HLS Seminar and Lean Review Pursue Next ETP Funding Grant

Oct SEA Certificati

Oct-Nov Correct any SE. Oct-Dec TA at SEA Stace Roll out 2008 St Nov

Dec All major KE are

Jan-Oct KE SEA Stage

KE SEA Stage

Launch Mexico

Implement Site

Implement PFE

Expand Lean E

Integrate Lean

HLS Seminar &

Expand Lean E

Expand Green (

Implement Desi

Change Schedu

Launch Strated

Model Line Con

Haskon & TAG

Haskon to SEA

2 Day leadershi

HLS Seminar &

TA SEA Stage I

TA SEA Stage I

Roll Out 2009 S

Apr-Aug Expand Skill Ba

Duration Plan

Mar

May

Nov

Year 4

2008

Year 5 Duration Plan

Jan -Oct KE SEA Stage III Activities at PMM level 3

Expand Green & Black Belt Six Sigma Programs

HLS Seminar & Lean Review Launch Strategic Planning Process

Apr-Aug Expand Lean Enterprise Efforts to Smaller Work Cells

Complete Significant Lean Enterprise Adoption in All Admin Areas Integrate Shipping, Warehouse, and Material Movement For Both Sites

Apply Lean Best Practices Across EMG

Strategic Planning process

Haskon at SEA Stage I with PMM level 3 Haskon at SEA Stage II with PMM level 1

HLS Seminar & Lean Review

TAISE A Stage I Activities With Process Maturity Level 4 TA SE A Stage II Activities at Process Maturity Level 3 TA SE A Stage III Activities at Process Maturity Level 1

Roll out 2010 Strategy, Plans, Budget

Year 6 Duration Plan

Jan-Oct KE & TA with all Stages at PMM Level 3

KE & TA with Stage 1 Processes at Level 4

HA with Stage 1 & 2 at Level 3 and Stage 3 at Level 1PMM

Lean Enterprise Wide at all Locations Expanded Use of 6 -Sigma in All Areas

HLS Review and Seminar Mar

Launch Strategic Planning Process Mav

Apr-Aug Lean from Supplier to Customer - Full Value Streams Benchmarking Wide Spread in Key Processes

Sep HA with PMM Level 3 for All Stages in SEA Roadmap

> TA Continued Progress Beyond Level 3 PMM KE Continued Progress Beyond Level 3 PMM

HLS Reviewand Seminar

Roll Out Strategic Plans, Budgets and 2011 Plans Nov

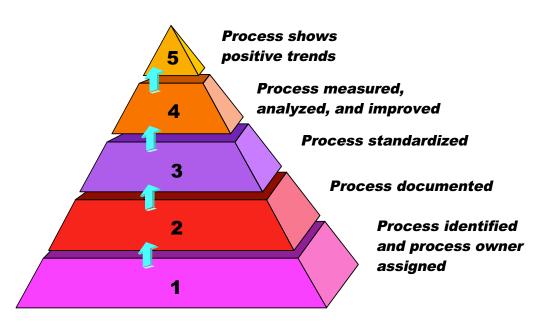




Process Maturity Matrix



The Process Maturity Model



KE Process Maturity Goal: SEA Roadmap Stage 2 Processes at Level 3 by April 2009

Lean Enterprise System	5.2.0 Managed Processes	Process	Master	PMM	PMM
Lean Enterprise System	3.2.0 Managed 1 10cesses	Owner	Trainer	2008	2009
5.2.1 Aircraft	5.2.1.1 Stock Prep Central	F. Serna	F. Serna	0.0	1.5
	5.2.1.2 AC Long Seal area	F. Serna	F. Serna	0.0	2.0
	5.2.1.3 Duct Department #101	J. De La Trii	F. Serna	0.0	2.0
5.2.2 IC / NPI Cells	5.2.2.1 IC Model Cell #226	M. Ibarra	S. Menold	0.0	2.5
	5.2.2.2 Sonaca Model cell	L. Kapahua	S. Menold	0.0	2.5





SEA Roadmap

Stage 2 Leadership & Culture

	Champion : President & CEO	Stabilization			
	Process	Process Owner	Master Trainer	PMM 2008	PMM 2009
1.2.1	Goals Deployment & Review	VP Finance	VP Finance	3	3
	Process				
1.2.2	Values Deployment Process	COO	VP HR	2	3
1.2.3	Supply Chain Integration	Dir Purch	Dir Purch	2	3

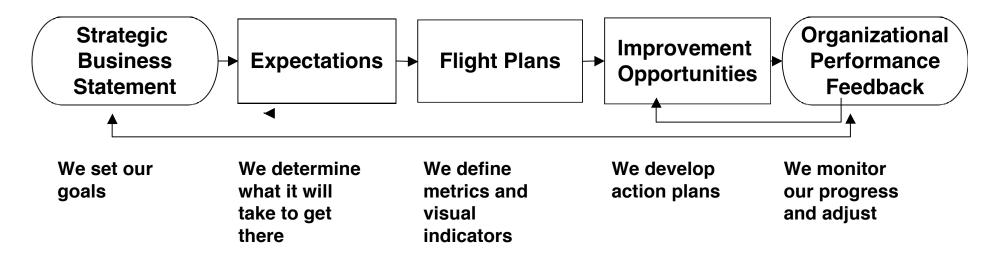
Six Executives SEA Certified in Lean Leadership





Building a Culture of Improvement

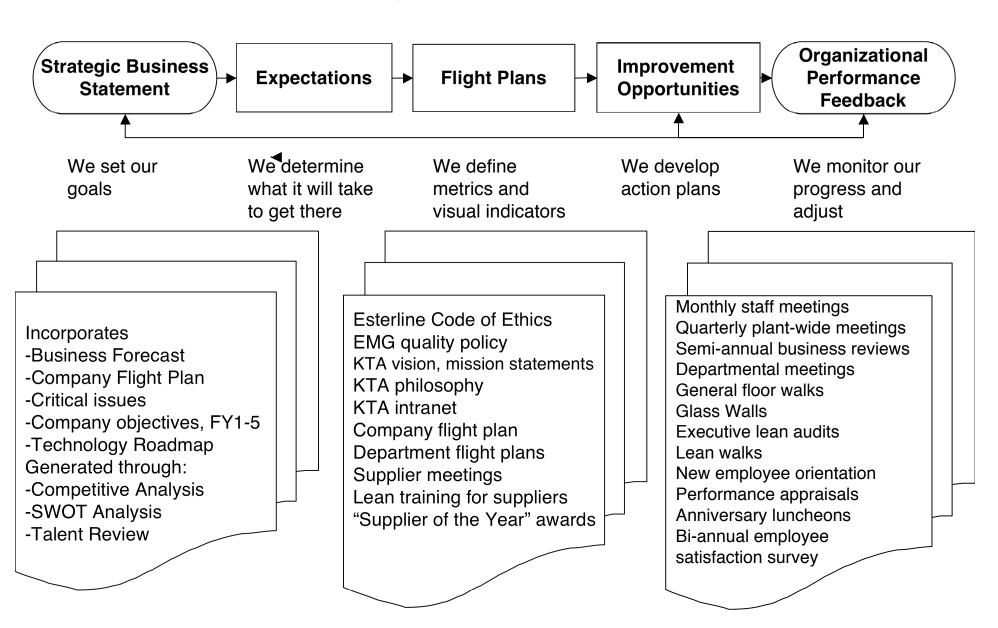
- Leadership & Culture





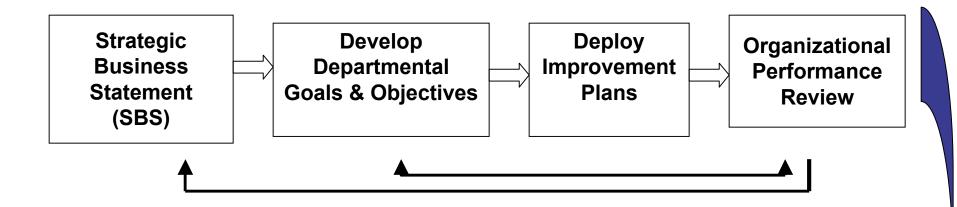


Building a Culture of Improvement



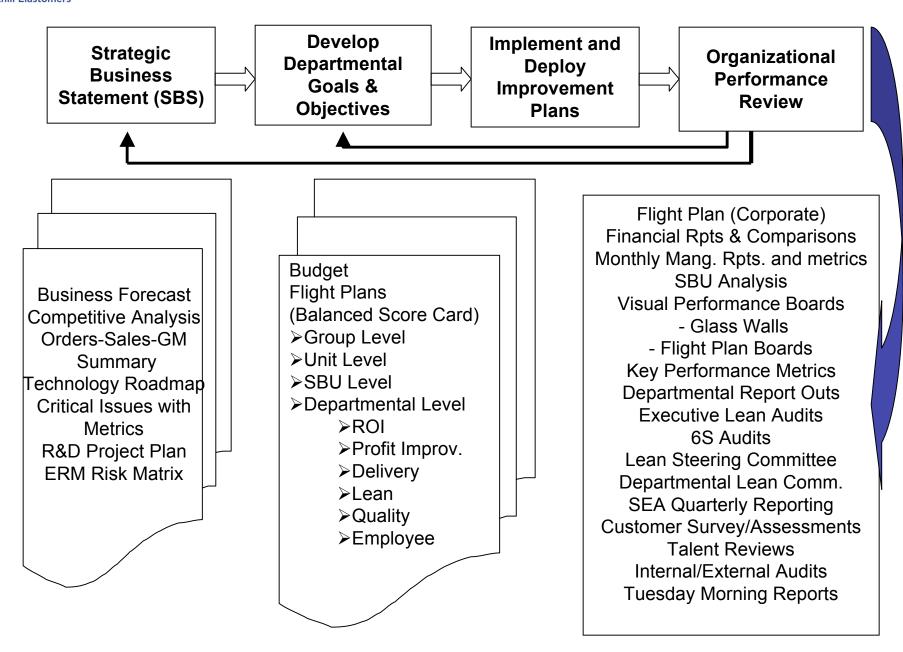


Esterline Organizational Performance Review System - Sustainment



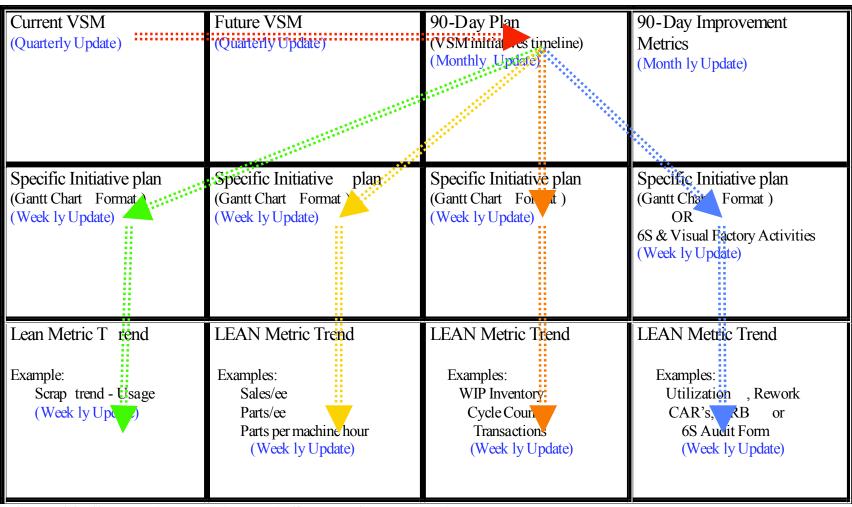


Organizational Performance Review System





Glass Wall Board Format



Bulletin Board details: 4'(W) X 3'(H) (OfficeMax order no. J4B364T)

Horizontal Wall Mount Sign Holders, Landscape, 8 _ "X 11" (Staples Item no. 665620)



Glass Wall Metric Examples

Engineered Materials Group

ingineered Materi	ESL Metrics	Company Metrics	SBU Metrics	Mfg. Dept. Metrics	Support Metrics
ROI	ROI	ROI pre-charge	GM %	Cost Metrics	Cost reductions
			Labor Effic %	Labor Effic %	Receivables/payables
			Inventory Levels	Inventory Levels	beat budget items
*PROFIT	% Profit Increase	Profit growth	% Scrap\$	% scrap\$	Eng., R&D costs
Growth	2008 vs 2007	Sales Growth	Variances to stds.	Sales prices up	Tooling costs
		Price Increases	Price Increases	Purchase price down	Oper. Supplies
			Expedite fees	Prem. Freight	Errors
			OH cost reduction	Equip. utilization	Overtime
				Overtime costs	Launch costs
LEAN	Sales per ee	Sales/ee	Sales/ee	parts per hour	Processing times
	Inventory tums	Inventory tums	Inventory Value	WIP inventory	Staffing levels
	Velocity	Thru-put times	Lead Times	Cycle counts	Cycle times/ velocity
		VSM times	WIP levels	Floor Space saved	Schedule compliance
		SEA PMM Levels	SEA PMM Levels	SEA PMM Levels	SEA PMM Levels
			Lean Implementation	Lean, 6-S Audits	PFEP's, 6-S Audits
				·	·
Delivery	Delivery	\$ past Due	\$ past Due	\$ past Due	Lead times
Delivery	Delivery	% Line Items on time	Line items on time	Line items on time	Order entry times
Delivery	Delivery			•	
Delivery	Delivery	% Line Items on time	Line items on time	Line items on time	Order entry times
Delivery	Delivery	% Line Items on time Customer Satisfaction	Line items on time Key customer ratings	Line items on time Daily on time %	Order entry times Development times
Delivery Quality	Delivery returns % sales	% Line Items on time Customer Satisfaction	Line items on time Key customer ratings Surveys	Line items on time Daily on time % Customer feedback	Order entry times Development times Response times
		% Line Items on time Customer Satisfaction Customer feedback	Line items on time Key customer ratings Surveys Internal Cust. Feedback	Line items on time Daily on time % Customer feedback Internal Cust. Feedback	Order entry times Development times Response times Internal Cust. Feedback
	returns % sales	% Line Items on time Customer Satisfaction Customer feedback \$ return % sales	Line items on time Key customer ratings Surveys Internal Cust. Feedback \$ return % sales	Line items on time Daily on time % Customer feedback Internal Cust. Feedback \$ return % sales	Order entry times Development times Response times Internal Cust. Feedback Paperwork errors
	returns % sales PPM's	% Line Items on time Customer Satisfaction Customer feedback \$ return % sales % line item returns	Line items on time Key customer ratings Surveys Internal Cust. Feedback \$ return % sales % line item returns	Line items on time Daily on time % Customer feedback Internal Cust. Feedback \$ return % sales % line item returns	Order entry times Development times Response times Internal Cust. Feedback Paperwork errors Passed first articles
	returns % sales PPM's	% Line Items on time Customer Satisfaction Customer feedback \$ return % sales % line item returns Rework costs	Line items on time Key customer ratings Surveys Internal Cust. Feedback \$ return % sales % line item returns Rework costs	Line items on time Daily on time % Customer feedback Internal Cust. Feedback \$ return % sales % line item returns Rework costs	Order entry times Development times Response times Internal Cust. Feedback Paperwork errors Passed first articles Survey results
	returns % sales PPM's	% Line Items on time Customer Satisfaction Customer feedback \$ retum % sales % line item returns Rework costs Customer Rpts AS-9100 results Training hrs per hourly	Line items on time Key customer ratings Surveys Internal Cust. Feedback \$ return % sales % line item returns Rework costs Survey results Training hrs per hourly	Line items on time Daily on time % Customer feedback Internal Cust. Feedback \$ return % sales % line item returns Rework costs Survey results Audit compliance Training hrs per hourly	Order entry times Development times Response times Internal Cust. Feedback Paperwork errors Passed first articles Survey results Supplier performance Accuracy Training hrs per hourly
Quality	retums % sales PPM's DPMO	% Line Items on time Customer Satisfaction Customer feedback \$ return % sales % line item returns Rework costs Customer Rpts AS-9100 results Training hrs per hourly Training hrs per salary	Line items on time Key customer ratings Surveys Internal Cust. Feedback \$ return % sales % line item returns Rework costs Survey results Training hrs per hourly Training hrs per salary	Line items on time Daily on time % Customer feedback Internal Cust. Feedback \$ return % sales % line item returns Rework costs Survey results Audit compliance Training hrs per hourly Training hrs per salary	Order entry times Development times Response times Internal Cust. Feedback Paperwork errors Passed first articles Survey results Supplier performance Accuracy Training hrs per hourly Training hrs per salary
Quality	retums % sales PPM's DPMO	% Line Items on time Customer Satisfaction Customer feedback \$ retum % sales % line item retums Rework costs Customer Rpts AS-9100 results Training hrs per hourly Training hrs per salary Safety indexes	Line items on time Key customer ratings Surveys Internal Cust. Feedback \$ return % sales % line item returns Rework costs Survey results Training hrs per hourly Training hrs per salary Safety indexes	Line items on time Daily on time % Customer feedback Internal Cust. Feedback \$ return % sales % line item returns Rework costs Survey results Audit compliance Training hrs per hourly Training hrs per salary No serious injuries	Order entry times Development times Response times Internal Cust. Feedback Paperwork errors Passed first articles Survey results Supplier performance Accuracy Training hrs per hourly Training hrs per salary No recordable injuries
Quality	retums % sales PPM's DPMO	% Line Items on time Customer Satisfaction Customer feedback \$ return % sales % line item returns Rework costs Customer Rpts AS-9100 results Training hrs per hourly Training hrs per salary	Line items on time Key customer ratings Surveys Internal Cust. Feedback \$ return % sales % line item returns Rework costs Survey results Training hrs per hourly Training hrs per salary	Line items on time Daily on time % Customer feedback Internal Cust. Feedback \$ return % sales % line item returns Rework costs Survey results Audit compliance Training hrs per hourly Training hrs per salary	Order entry times Development times Response times Internal Cust. Feedback Paperwork errors Passed first articles Survey results Supplier performance Accuracy Training hrs per hourly Training hrs per salary No recordable injuries Convert temps
Quality	retums % sales PPM's DPMO	% Line Items on time Customer Satisfaction Customer feedback \$ retum % sales % line item retums Rework costs Customer Rpts AS-9100 results Training hrs per hourly Training hrs per salary Safety indexes	Line items on time Key customer ratings Surveys Internal Cust. Feedback \$ return % sales % line item returns Rework costs Survey results Training hrs per hourly Training hrs per salary Safety indexes	Line items on time Daily on time % Customer feedback Internal Cust. Feedback \$ return % sales % line item returns Rework costs Survey results Audit compliance Training hrs per hourly Training hrs per salary No serious injuries	Order entry times Development times Response times Internal Cust. Feedback Paperwork errors Passed first articles Survey results Supplier performance Accuracy Training hrs per hourly Training hrs per salary No recordable injuries

Management Involvement is Required

MANAGEMENT LEAN AUDIT FORM

Date:

D

Esterline
Engineered Materials Group

Date:	 	
Dept:	 	

	Evaluation & Scoring Criteria				Notes	for the l	Next Level of Improvement	
Category		ties are in- progress, no clear ownership, not sustaining being sustained, employee involvement, using metrics to track progress 9-10 = Lean Enterprise wide, trends					less requires a feedback comment. Perfect score = 100	
	<u> </u>		positive, everyone fully engaged					
6S Deployment & Sustainment	countermeasures implemen	ns completed, scores are rea nted. Employees engaged to ell organized, and effectively	maintain and improve 6S scores.					
Lean Waste	ean Waste Positive results from Kaizen improvement activities to reduce WASTE: Overproduction,							
Elimination	Excess Inventory, Waiting, Over Processing (labor or reports), Correction (rework), Over Transportation (People/Material), Under-utilization (People/Machines).							
Glass Wall Boards exist, are populated with correct information, updated and in use. Current and Future State VSM's, 90 day overall plan, detailed action plans, meaningful metrics, skills cross training, etc. Plans and metrics are meaningful and appropriate.								
Visual Management Hr-by-Hr production charts in use & up-to-date, Kaizen Newsletters effectively used as a Systems & Controls two-way communication deviceAndon systems, color coding systems, floor marking, lights, shadowboards, task boards, etc. established and in use. Visual office concepts in use.								
Strategic Initiatives	Major initiatives aligned to achieve Flight Plan Targets. Updated Flight Plan metrics are in							
linked to	place to monitor progress t	bjectives, Quarterly Plans, and						
Flight Plan	actions taken. Priorities reflect both current and long term business needs.							
Standardization	Evidence, usage of standar	d work (Work Instructions,	Operation Sheets, Written					
Practices, Process	Processes, etc). Standard office procedures in factory and offices. Standard forms used.							
Maturity Model	Changes documented. Sta	aturity being actively improvd.						
Employee	Skills Certification table use	ed and posted, Master traine	ers identified. Training goals met.					
Development &	Recognition & Positive Re	einforcement program on disp	play. Team members knowledgable					
Involvement	in Lean tools in use, can ex	kplain systems and procedure	es in use in their areas.					
Lean Systems	Established and maintained	:Kanbans, Min-Max System	ns, Supermarkets, Level Loading					
Implementation -		Replenishment devices, Line						
Factory & offices	Balancing Charts, etc. Eas	sy to understand and use.						
Leadership and	Managers, supervisors and lead people actively lead Lean activities by example. Their own							
Support	work areas are organized, use visual controls, have performance indicators. Area leaders							
	-	own the processes and are committed to process improvement through Lean.						
New Lean Initiatives	-	,	duction Cells, Storage Areas).					
for Future	Plans and actions exist to engage new areas (or people) into the Lean Entrerprise. Area							
	leaders can explain plans fo	or future expansion of Lean t	*					
Previous Qtr.	Monthly Score Log			otal 0	÷ 10 =	0.0	(Month Average Score)	
Avg:	1st Mo:	2nd Mo:	3rd Mo.:					
Auditors:								



KIRKHILL TRAINING PLAN FY2009

Project Management

•Quick Change Over, SMED

Time Management

Kanban Systems

Flight Plan Initiatives Linked Training:

✓ Delivery :

✓ Return on Investment:

- •Flight Plans, Managing by Objectives
- Flight Plans, PDCA
- ■ManMan BOM's, Routers, Work Orders, Xactman
- Inventory Management, Warehouse Procedures

✓ Quality:

- AS 9100 Introduction & Advanced
- Geometric Dimensions and Tolerancing
- Master Trainer training, Job Skills
- Problem Solving/Root Cause Analysis
- Quality System Training, Levels 1-4

✓ Profit Growth:

- Contract Review
- Customer Service Skills
- Regulatory Compliance Training
- Financial Reporting for Managers/Supervisors
- Six Sigma Problem Solving

✓ Lean Enterprise :

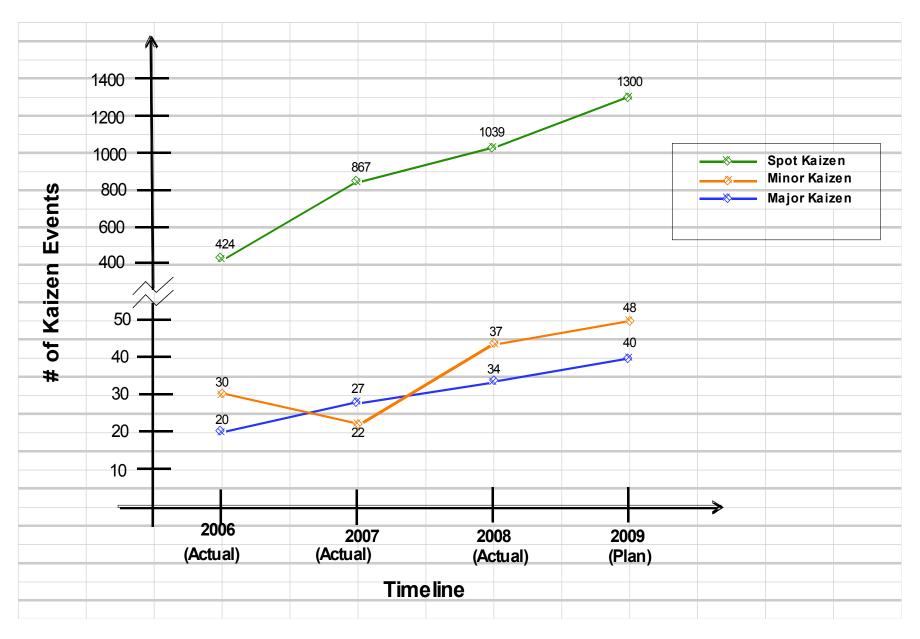
- •6-S, 6-S Audit Review
- Glass Wall & Visual Indicators, Visual Office
- Production Min-Max Supermarket,
- Value Stream Mapping, Kaizen
- Metrics, How to Develop & Use
- SEA LES, HLS Lean Basics, LET

✓ Employee Relations:

- Communication Skills, Leadership Skills
- Esterline Competencies Individual Performer
- Esterline Competencies Managerial Needs
- ESL Management Essentials
- Office Safety, Production Safety Topics
- Stress Management, Change Management



KE Kaizen Events Log Chart



Approach

• Worker creativity re-energized by designing and building a suitable work environment.

A place for everything and everything in it's place.



 Work is now being performed with attention to detail

Small Line Work Bench



Brea Before

The Small Line occupied a large area under-utilized for work and over utilized for the placement of WIP and other non-essential items

Brea After

As a direct result of the 5S activity, the entire Small Line was able to move closer to the next process; identification. This freed up over 400 sq. feet of space which allowed the department to move a related process to where it could feed into the next processes.





Lean Future Plans Overview

Strategic Planning Sessions

HLS Reviews & Seminars

SEA Stage 2 & 3 PMM level 3

Glass Wall Boards

Plant-wide Meetings

Exec Lean Steering Committee

Lean Executive Audits

Flight Plan Reviews

Kaizen Events

6-S Area Audits

Production Charting

May - August - November

March - September

Ongoing

90 Day Plans

Quarterly

Monthly

Monthly

Monthly

Daily / Weekly

Weekly

Hourly



Kirkhill-TA Lessons Learned

- Must be driven by top management
- No silver bullet If anything, it is sustained through faith and trust in the process.
- Communications vital, get people engaged
- Layered auditing minimizes backsliding.
- Effective training has a good payback.
- Administrative gains can be significant.
- Use factual metrics to track progress.

Over time it becomes part of the DNA of the company.



SEA Roadmap IT'S ALL ABOUT VELOCITY & CUSTOMER FOCUS!











Thank You