

LIVE STREAM



EDUCATIONAL SEMINAR

CAPTURING TRIBAL KNOWLEDGE

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SEMINAR SPEAKER



HELEN SWANSON

Director of Quality & CI
Sportech, Inc.

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BETTER IDEAS. BETTER SOLUTIONS.



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WHO WE ARE

OEM Exclusive Product Development Partner

- Focused on Powersports, Golf and Turf, and Agricultural platforms

Culture

- EOS Company (Entrepreneurial Operating System)
- Company Purpose : People Over Plastic
- Hire, Live and Fire by our Core Values: Integrity, Excellence, Attitude, Innovation, and Collaboration

Industry Credibility

- We are ISO 9001:2015 certified
- 200,000 sq. ft manufacturing space in Elk River, MN
- 350 full-time employees



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SPORTECH HISTORY

- 1993 // Chris and Dallas Carlson invent the Light shield – Company founded in a garage
- 1998 // First production facility
- 2000 // First OEM accessory business
- 2008 // New 90,000 sq. ft. headquarters
- 2012 // OEM exclusivity complete
- 2015 // Full Lean Enterprise implementation
- 2016 // Additional 105,000 sq. ft. manufacturing facility
- 2017 // Diversification into new markets such as marine & turf
- 2018 // Sportech celebrates 25 years with \$120 in revenue and 18 major OEM accounts in 4 industries
- 2019 // Carlson family exits the business, Sportech acquired by Monomoy Capital Partners



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CORE MANUFACTURING

CAB SYSTEMS

- Largest design & manufacturing partner of OEM consumer cab systems in the world
- Fully custom, OEM exclusive design
- Full integration of electrical and glass components
- Industrial design group ensures your brand DNA is present in the final design
- Extensive production and accessory cab experience
- Injection-mold, thermoformed and glass system opportunities
- Unique power and manual roll down window systems

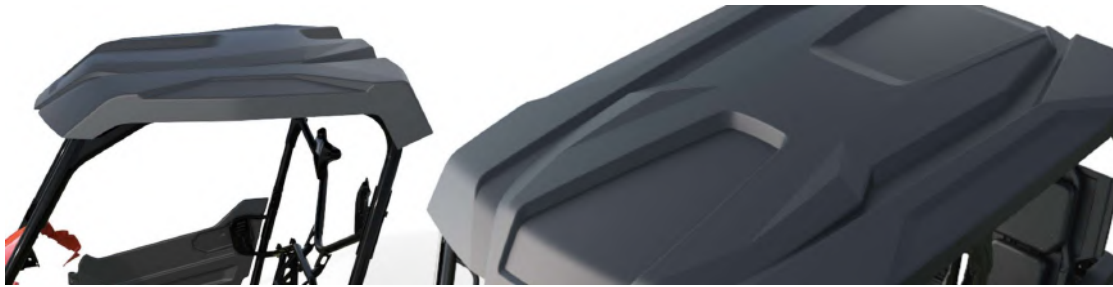


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CORE MANUFACTURING

THERMOFORMING

- Sun Canopies / Cab Roofs / Sport Roofs
- Rear panels and other cab elements
- Class-A appearance parts both painted and unpainted
- OEM body panels styling elements
- Fender Flares, Storage Boxes
- Complex thermoformed assemblies



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CORE MANUFACTURING

WINDSHIELD SYSTEMS

- Premium materials
 - *Optical grade polycarbonate*
 - *Abrasion resistant polycarbonates*
 - *Laminated AS1 safety glass*
- Custom screen printed graphics
- Custom windshield wiper systems
- Regulatory and DOT conformance (AS1, AS4 & AS6)
- ANSI Z26.1 and EU regulatory acumen
- Largest supplier of OEM UTV windscreens in the industry

DRAPE FORMING

- Proprietary quick attachment solutions
- Custom screen printed graphics
- Aggressive shapes and hard lines
- Unparalleled optical clarity
- AS6 Compliant
- DOT certified supplier
- Minimal tooling investment
- Industry leading technology




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How Tribal Knowledge came to be

The first 25 years

- Entrepreneurial
- Can do attitude
- "Just get it done"
- Small community / small workforce
- Long tenure

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Routing Criteria


Route of Upper Windshield 99181994

Quality Criteria Rout Upper Windshield:

1. Handle with care. Lift part completely; do not slide on route board.
2. Route with screen-printing up, cling against route table.
3. Check routed edge for a consistent edge round route. Make sure part does not lift from board.
4. Blow off chips before stacking on pallet so chips do not lie between parts. Place paper between each layer to avoid scratching. Screen-printing will be **blowing up** (for brake press) when stacking.




Route of lower Windshield 99181995



Quality Criteria Route Lower Windshield


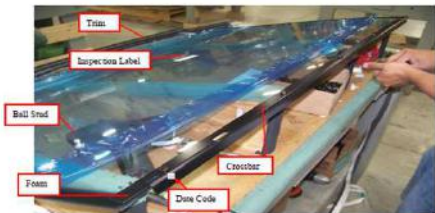
1. Route with screen-printing up, cling against route table.
2. Handle sheets with care & completely lift at all times. **watch these areas**
3. Check routed edge for consistency in the edge round. Make sure part does not lift from board.
4. Blow part off before removing from router, making sure that parts are free from router chips before stacking on pallet. Place paper between each layer (3 parts per layer) to avoid scratching



ASSEMBLY

Upper Windshield Assembly (99161190)

1. Place press-brake part (99301044) on trim table. Table must be covered with to avoid scratching
2. Apply trim with a rubber mallet. Check to make sure trim is locked on and wiper is facing outside of windshield. **use fixture # 001435 25/5/18**
3. Pound trim flat using a rubber mallet and placing trim edge on trim table.
4. Apply foam to both ends of part. Foam is to be applied to the screen printed surface. Foam will run from built trim to edge of mounted part. Cut angles on foam to match angles on part.
5. Secure 2 ball studs with 2 nuts on to windshield. Ball studs to face outside of windshield. Remove cling before installing ball studs, then replace cling
6. Attach crossbar to windshield using 5 pan head screws and 5 Nylock nuts. **part num: 99160023 H+3/16**
7. Apply inspection label to cling side of windshield.
8. Apply Date Code stickers to cross bar

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Production Hourly Check Sheet

Job: _____ Production Guide Number: 00180471 Router

Date and time	Sign off of 1st operator approval (initials)	Hourly check (initials)	60° Bends Bend depth 1.22	45° Bend Bend depth 1.25	303 ± .015 (6 places)	Visual inspection (Pass/Fail)

 CONTROL PLAN DOES NOT EXIST OR IS
 INCOMPLETE
 PLEASE CONTACT YOUR QUALITY INSPECTOR



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Why Change?

• 2018

40% Growth in revenue

Cannot afford downtime to look for answers
 Cannot afford to build things twice

127 New Employees + Temp staff / Higher turnover rates temp staff

Needed new tools to train
 Needed to hold people accountable

More stringent customer requirements

Customers adding Supplier Quality Requirements to reduce risk
 New customers with stringent process control requirements.

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Barriers to Change

- **Culture**

OTG

On The Gas

Keep moving forward – don't look back.

Lean (not the good kind)

- **Long product life cycles at low volume**

15-25 year support of product in the field.

"Legacy"

- **Volume**

1000s active Finished Goods Part Numbers

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How do you break down the barriers?

Develop your "WHY"

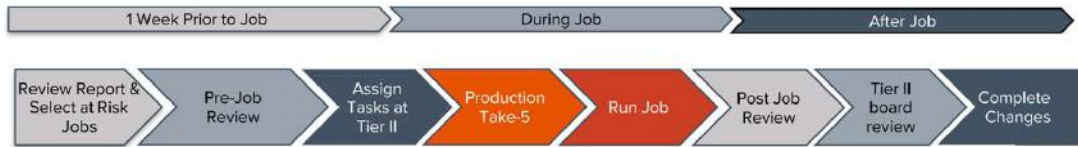
Identify the Change Agents

Build the Process Together

Provide Prioritization

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Job Review Process



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Job Review Process



Review Report
& Select at
Risk Jobs

JobNum	OpCode	StartDate	PartNum	PartDescription	ValueStream	Week	Run Rate	Projected COPI	Past Six Months	Next Three Months
081951	VS3SIM PL	7/13/2020	BM25147	HUV, REAR PANEL, PC	VS3	7/13/2020	36%	\$ -	3	1
082574	VB2C4	7/14/2020	99183285	ROUTED, HUV, DOOR, REAR, LH	VS1	7/13/2020	47%	\$ -	3	1
082992	KIT2-1	7/16/2020	80401465	HDWR KIT, RGM CAB (MANUFACTURED)	VS3	7/13/2020	52%	\$ 0.08	3	2
082825	VB1C3	7/13/2020	99183290	ROUTED, LH FRONT CLOSEOUT, HUV S4	VS1	7/13/2020	58%	\$ -	3	1
082826	VB2C4	7/13/2020	99183291	ROUTED, LH FRONT DOOR, HUV S4	VS1	7/13/2020	59%	\$ -	3	1
MRP0000000 0224	KIT2-1	7/16/2020	80600001	HDWR KIT, SUNTOP (MANUFACTURED)	VS3	7/13/2020	62%	\$ 2.23	4	2
081526	VS3CW S2	7/15/2020	99161556	ASSEMBLED, B-PILLAR PASS, SIDE (RH), 4 PASS	VS3	7/13/2020	62%	\$ 19.54	2	1
080608	3RB2R4 A	7/13/2020	2882178	K-ACCY, WSHLD, TD, GT	VS3	7/13/2020	68%	\$ 158.64	9	2

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Job Review Process



Pre-Job Review

SPORTSCH Form **Job Review** Page 1 of 2
 Approver: Tom Coenen Title: Director of Operations Date: 6/25/23 Rev: 2.0

Part Num# _____ Part Desc _____

PRE-JOB REVIEW
 Historical Productivity Production/Production Request Supporting Efficiency and COPQ, etc. Historical Quality

Requirement	Attached in Estor	Not Attached in Estor	Needed or Update Needed	Action Assigned
Set-up Sheets (if applicable) Updates Needed:				
Production Guide _____ Old _____ New Updates Needed:				
Traveler/Method Updates Needed:				
Control Plan check sheets require updates Updates Needed:				
Operator Standard Work Updates Needed:				
Line/Cell Layout Updates Needed:				
Fixtures Updates Needed:				

BRING TO TIER BOARD FOR REVIEW

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Job Review Process



Assign Tasks at Tier II

SALES
 Monthly July 2023
 (Bar chart showing sales data)

QUALITY
 DAILY GOAL ISSUES

DATE	GOAL	ISSUES
M	3:17	3:540
T	3:10	3:540
W	3:17	3:540
TH	3:17	3:540
F	3:25	3:540
SA	3:25	3:540
SU	3:25	3:540

HOURS
 HOURLY ISSUE

DATE	ISSUE
01	ST of
02	ST SC
03	M Running
04	ST

CONTINUOUS IMPROVEMENT

DATE	ACTION	DATE	DATE
07	Fix up in new floor	07	07
07	Fix picket in shop's area	07	07
07	Fixt. Fixt. time	07	07
07	Improve/fix/fix	07	07
07	Fixt. Fixt. time	07	07
07	Improve/fix/fix	07	07
07	Fixt. Fixt. time	07	07

RECOGNITION

DATE	ACTION	DATE	DATE
07	ST of	07	07
07	ST SC	07	07
07	M Running	07	07
07	ST	07	07

OTHER
 YENKOW HOURS - NEEDS TO SHOW WHEN IN YENKOW HOURS
 # of HOURS IN YENKOW HOURS
 (Handwritten notes and a small calendar)

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Job Review Process



Production Take 5

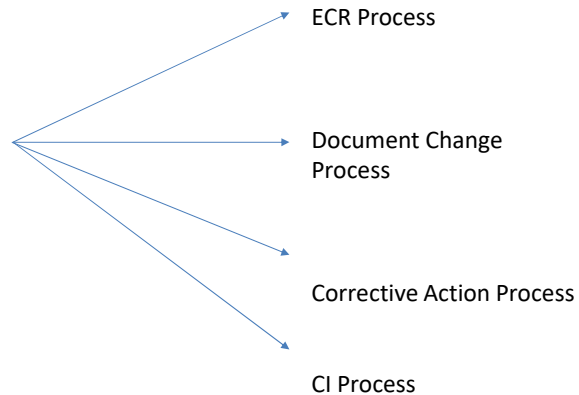
- Has the set-up process been followed and complete?
- Are all tools, fixtures and guides available for use?
- Is the Production Guide, Control Plan, Operator Standard Work and Cell Layout clear and understood by all?
- Has first part approval been completed? Review part as a team.
- Are there any known areas of concern? (review quality alerts, scrap history, and productivity reports)

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Job Review Process



JOB REVIEW		Page 1 of 1
Job #	_____	_____
Team	_____	_____
Was the job run without safety incidents? Yes / No	_____	
Were there any quality issues during the job? Yes / No	_____	
Was the process as the Method/Production Guide used? Yes / No	_____	
Did the Production Guide and Timeline match the process that was following during the job? Yes / No	_____	
Were any orders inside the Production/Setup? Yes / No	_____	
Did the job run as intended? Yes / No	_____	
Were changes made to the Machine Settings during the job? Yes / No	_____	
Did the job run as standard? Yes / No	_____	
How did you achieve standard? _____	_____	
Was the standard achieved? Yes / No	_____	
Suggestions for improvement	_____	
BRING TO TIER BOARD FOR REVIEW		



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How is it working?

Slow and steady

Rome wasn't built in a day
Stay focused while busy, daily check-ins

Less frustration

People have a voice and see the results
Better prepared at the start of the job, less rework

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Key Takeaways

1. Acknowledge the Positive
2. Understand the Culture
3. Develop your "WHY"
4. Identify the Change Agents
5. Build the Process Together
6. Provide Prioritization

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SOLUTIONS

