SUTPHEN CORPORATION

2016 Dublin Operations / Facility Update

PRESENTATION POINTS

- Organization / Leadership
- Quality
- Delivery
- Inventory
- Human Resources
- Environment / Facility

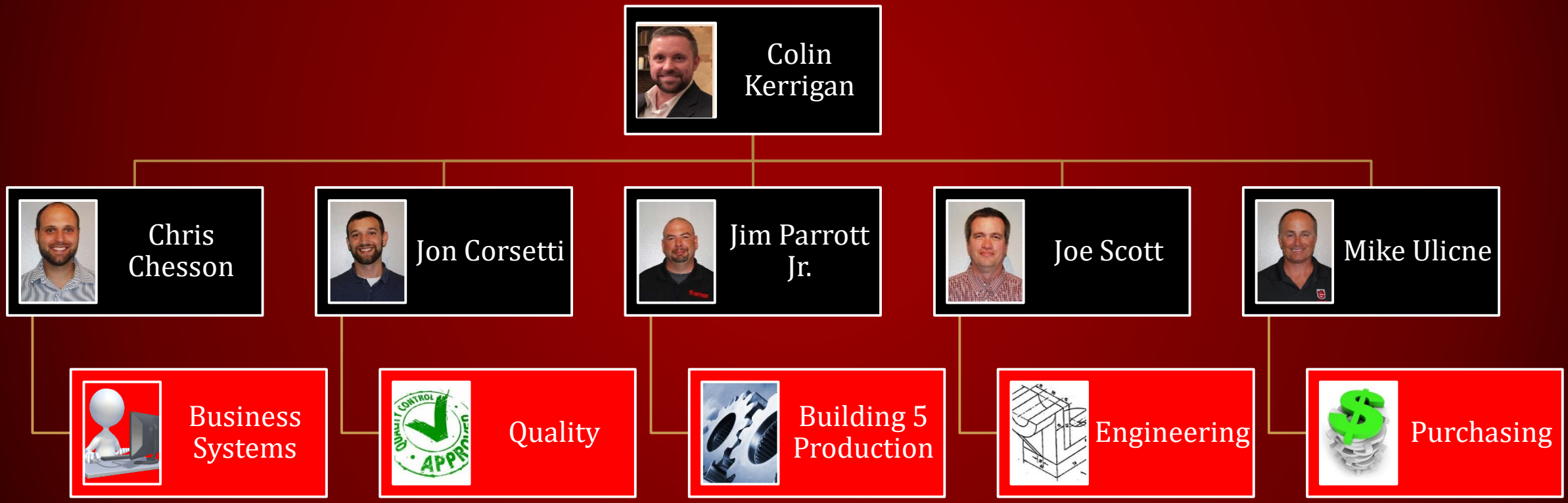
ORGANIZATION / LEADERSHIP

Developing Growth through Expanded Responsibilities

ORGANIZATION UPDATE

- Manufacturing must mature within Sutphen to change the culture and realize expected results, there is a need to manage each value stream. Understanding the role and the responsibility.
- Simply building product and responding to daily challenges will result in minimal improvements. This consumes Supervisors +100%
- Based on needed skill sets for each Supervisor and improvement needs of the department, the manager that will bring the appropriate managerial solutions into practice has been identified to become the primary support leader for a value stream.

OPERATIONS MANAGEMENT TEAM



OPERATIONS MANAGEMENT TEAM + VSM ROLES

Colin Kerrigan

Chris Chesson

Jon Corsetti

Jim Parrott Jr.

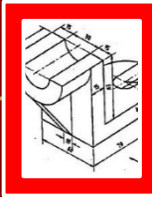
Joe Scott

Mike Ulicne

Business Systems

Quality

Building 5 Production



Engineering

Purchasing

Aerial Finish

Custom Pumper

Delivery & Program

Plumbing Body Build

Aerial Body & Ladder

OPERATIONS MANAGEMENT TEAM / SUPERVISORS

Tony Sicilian	Jeff Carper	**Garrett Lemaster	Jeff Carper	**Jon Wood / Paul Miller
Aerial Finish	Custom Pumper	Delivery & Program	Plumbing Body Build	Aerial Body & Ladder

VALUE STREAM MANAGEMENT - BENEFITS

- Benefits of this Organization and Action include:
  - Immediate support for Supervisors on:
    - Information – Able to answer questions quickly and thoroughly
    - Planning – Teaching methods on time management, making plans, documentation, validation of completions.
    - Headcount assessments and recommendations for adjustments (up or down).
    - The general issues they face everyday and the ability to help them make quick and effective decisions
  - The ability to work closely with production leadership and break down the barriers to success
  - Growth of product knowledge and applications for typical indirect responsibilities
  - Direct impact on the costs of each area based on hours management and overtime controls
  - By dividing and conquering the constraints, corrections can be made faster and gains can be realized before the end of Q2.
  - Team Members will respect this level of involvement and see that we do care about the challenges they face everyday.
  - Training / Teaching Management Best Practices to create unity across all departments

ORGANIZATION TRAINING

Providing Leadership Growth for Increased Performance

ORGANIZATION TRAINING / DEVELOPMENT

C.O.R.E. Training

- Established this year to develop our leaders for enhanced performance and growth
- Provide tools for daily success – personally and professionally
- Created common language among all leaders for holding each other accountable.
- Learning key fundamental behaviors that all levels of leader can use.
- Investing in anyone who wants to take the next step or simply add more value to their existing role.

QUALITY SYSTEM DEVELOPMENT

Establishing a Quality System through Internal Controls

QUALITY DEVELOPMENT

S.T.Q.S. - Sutphen Total Quality System

Standards Development

- Establishment and Documentation
  - Time Standards – Creation through Observation
  - Process – Sequencing and Repeatability
  - Fit and Finish – Sutphen and Customer Expectations
- Control Standard Changes
- General Process and Quality Standards
  - Electrical – All Electricians “do it” the same way.
  - Assembly – All Assemblers observe a best practice
  - Corrosion – Don’t Assume Anything; Train for Success.
  - Welding -
- Paint – Evaluating our Options in Product and Processing
- Dealer Ideas and Recommendations – Action based on Feedback

Developing Standard Process Elements and Standard Planning Times

SUTPHEN	SutphenCorporation - Process Mapping	Department	Plumbing	Model	SP95/100	Process Summary	Review the Body Extrusion with Aluminum Welder
	Standard Work - Job Breakdown Sheets	Time Code	0001	Operation Number(s)	OP-1	Major Product	Shield

Created	3/6/2016	Document Control Number	Created By	Reviewed By	Approved By	Quality
Revision	V1.0	PL-OP1-0	*Jeff Carper*	*Jim Parrott Jr.*	*Colin Kerrigan*	

No.	Tools Required	No.	Safety Requirements
1	Saw - General Cutoff	1	Safety Glasses
2	Welder - Tig / Mig	2	Protective Shoes
3	Square, Clamps, Hoist	3	Lift Carefully & Use the Hoist

No.	Past Lessons Learned from this Process
1	
2	
3	
4	
5	
6	

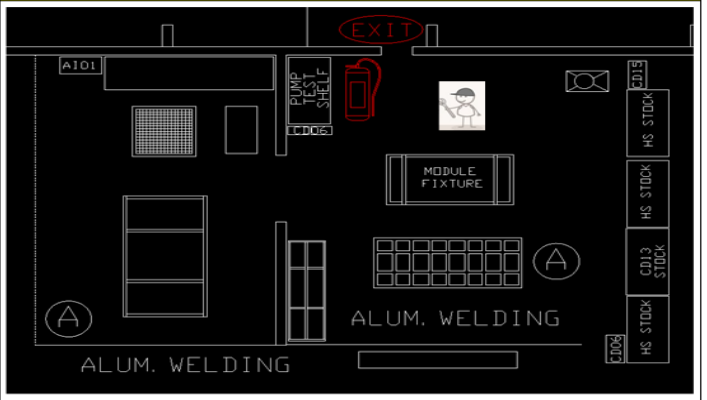
Steps to the Process		Key Points for Success for each Step		Reasons the Key Point		Pictures / Drawings / References
What	*A logical segment of the operation that advances the work*	How	Items and Important Steps that will: 1. Make of Break the Process 2. Prevent injury to the worker 3. Make the work easier	Why	*List the reasons or explanations for the key points.*	*Show any type of visual information that supports the important steps, key points, and / or for completing the tasks. This visual information should support the detail behind the verbal explanation.*

Process Step						
1						
Time Code						
0001						
Process Step						
2						
Time Code						
0001						
Process Step						
3						
Time Code						
0001						
Process Step						
4						
Time Code						
0001						
Process Step						
5						
Time Code						
0001						
Process Step						
6						
Time Code						
0001						
Process Step						
7						
Time Code						
0001						
Process Step						
8						
Time Code						
0001						

↓↓ Pictures / Drawings / References ↓↓

Manpower Requirements						
*	Team Members	2	*	Current	A = 1	B = 1
*	Work Shifts	A and B	*	Available	Total = 2	

Work Location = Fabrication - Prep Extrusion Area



Standard Hours to Complete Operation							
No.	Model	Level	Hours	D	Level	Hours	Days
1	S1	Basic	16	1.8	High		
2	S2	Basic	16	1.8	High		
3	S3	Basic	16	1.8	High		
4	S4	Basic	16	1.8	High		
5	S5	Basic	16	1.8	High		
6	S6	Basic			High		

Requirements for Quality	
1	All welds MUST be cleaned and free of weld smoke residue
2	The final product must meet engineering prints
3	Grind ALL sharp edges and remove burrs / weld spatter
4	
5	
6	

Key Point Detail		Page
SP = Standard Process		1
Q = Quality	**K** = Special Skill or Technique Required	of
S = Safety	**BP** = Best Practice	1

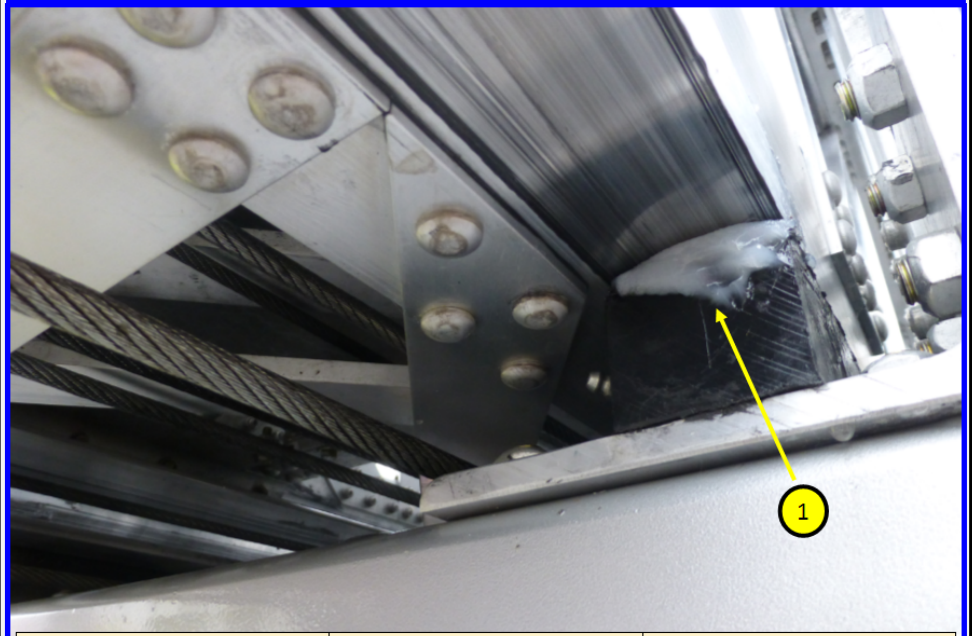
FIT / FINISH / ACCEPTANCE STANDARDS FOR DELIVERY

Quality Acceptance Standard - Final Result

Quality Standard Detail—Please refer to the standard listed below. This is the Standard expectation for a completed part, assembly, or process as part of Sutphen's output expectations.

1. Super Lube Grease must be applied liberally to all slide blocks as shown
2. After the grease is applied it must be distributed per standard work
3.

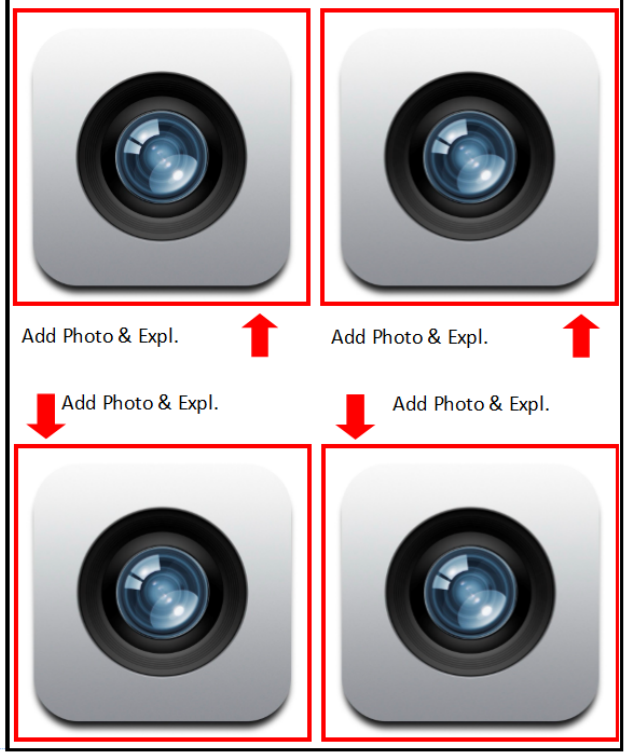
Final Inspection Result Standard



Acceptance Standard #	Acceptance Approved By	Acceptance Std. Date

Deviations from the Quality Standard will be documented at inspection, during the process by the operator downstream, or by the customer. Below are a few examples of what has been found. **These conditions are not acceptable and DO NOT meet the Sutphen Total Quality Standard and MUST be corrected if this condition is ever found.** Please learn from these and make sure to only deliver the best quality to the next process. Defects are extreme wastes in many ways.

Past Issues / Conditions



- Acceptance Standards must be Documented and Show the Expectation?
- The Detail must be clear, concise, and communicated.
- Past Issues have to be captured and used as learning opportunities
- Individuals need to know when they meet and when they do not meet the standard set.
- Teach, Train, Check, Repeat

ACCEPTANCE STANDARD CHANGES

Version ASC.1.3.1

REV Date: 8/31/2016

Acceptance Standard Change
Marker Light for Coffin Compartment Install

Approved by:
Engineering:
Production:
Quality:

New Standard

- For coffin compartment applications only *ADD this protective bracket*
- Items should be located in the kit for Pumpers, see location in BOM if not

Old Standard

Previous STD:

Install shown with no bracket

Associated Information

Reason for Standard Change:

- This change came as a result of feedback from customers in which they were having issues damaging the marker light when installed on the coffin compartment(s).

Summary of Affects:

Who: Electricians of both Pumper Finish Departments
Where: Directly below Rear upper warning light package (rear beacons) on coffin compartment installations
From When is it Effective: **MM/DD/YY**

Quality Requirements

BOM	1 Marker Light: AX# – 10014827 , Location – WA0415 2 Bracket: AX# – 10014938 , Location – WA1307 Other AX BOM items and required tools
Functional	Light must: • Turn on with accessory power on in truck, • Stay on for full power and Turn off when accessory power turned off
Fit and Finish	No major scratches in marker light and bracket DA'd if marked up Follows General Electric + Assembly Acceptance Standards

QUALITY SYSTEM DEVELOPMENT

Standards Development

Stop Overlooking the Obvious

QUALITY SYSTEM DEVELOPMENT

Standards Development

Who wants What, When, Where and How?

- Example: Tele Light Location
- Identified as a must for one group.
- Sharing Information provided insight for others.
- Standards can be created through communication
- Documented and now repeatable

ELIMINATING BOTTLENECKS

Added an Additional Body Fixture

Allowed us to recover 17 days in the pumper body build

Due to complexity and build times, an additional fixture was necessary

Operator was reassigned from another area to cover the build needs on the fixture.

DUBLIN OPERATIONS SUMMARY

- Delivery
  - Moving Pumper Production to Aerial during reduced backlog
- Inventory
  - Mid Year Inventory is Next Week
  - Escallated Controls through Business Systems Management
- Human Resources
  - New Policy Development
  - Employee Wellness Initiatives and Morale Building
- Environment / Facility
  - Please Come and Visit – The Changes are Literally Daily