

Subject: Cleveland Process Audit

Date: May 29, 2015

Completed By: Steve Busicnki

On May 29, 2015, work order CLV 56098 was ran on the CR2 for Unified. Tag 214500 was verified prior to loading and use of the coil. When production began, one of the first sheets was checked for length, width, square, and gauge. The sheets were visually checked for flatness, wave, and bow. The next bundle started the 144" product and one of the first sheets of this bundle was checked for length, width, and square and visually checked for flatness, wave, and bow. Measurements were recorded on the Quality Checklist. Based on the gauge report, 99.7% of the material was within specification with an average thickness of 0.0423. This average is within the customers specification of 0.0406 – 0.0506.

Part Spec/PO Audit Form

Cust #	2801	Customer	Unified	Grp/Sz/Grd/Width	AZS / 0.0456 / CSB125 / 48.0000
Equip/Plant	PWC CR2	Work Order #	CLV 56098	Part No.	ST SHT1146
		Date	5/29/2015		
Work Order Information		Material to be Used		Actual	
	Tag #1	214500	Tag #2	Gauge #1	Gauge #2
	PO#	21563-001	PO#	% Gauge In Spec	% Gauge In Spec
Gauge Range	Gauge Min	0.0406 Min	Gauge Min	Low/High Gauge	Low/High Gauge
Width Range	Width	48.0000	Width	Average	Average
Length Range				0.0423	0.0429
Rockwell	Rockwell		Rockwell	48.068,48.062,48.062	Width
Tensile				44.093,144.093,144.09	Length
Yield	A463 Aluminumized			Rockwell	Rockwell
% Elongation	Coil CS Type B				
Chem Rqmts	T125				
Other Rqmts	.0406 Min X				
Wave 0 - .13	48.0000"			Other	
Bow 0 - .25					
Flatn 0 - .13	1pc 10,400lbs				
Summary					
Actions					
Final Status					

Quality Checklist

Machine # 2

Ordered RB: *[Signature]*

Gauge Tolerance			Width Tol:	Length Tol:	Square Tol:	Flatness Tol:	Inspected By	Date
Skid Tag#	Edge	Crown	Edge	Width	Length	Square	Flatness	
41470	042	043	042	48.063	96.125	031	< .120	5-29
Last piece of 1st bundle	042	043	042	48.062	96.125	031	< .120	5-29

[illegible]

Skid Tag#	Edge	Crown	Edge	Width	Length	Square	Flatness	Inspected By	Date
41473	042	043	042	46.062	144.093	062	2.220	Jmc	5-29
Last piece of last bundle	042	043	042	48.062	144.093	062	2.120	Jmc	5-29

AGT400 Coil Summary Report

Jemison Metals -- 75 Inch Red Bud CTL Line

Work Order: 56098 Coil Number: 214500

Customer Name: UNIFIED Heat Number: M F00941 Vendor: METALONEAMERICA

Product: T1-25 Aluminized May-29-15 2:03 PM to 2:37 PM (clock 34.4 min/ run 10.9 min) Shift: 1

Average Thickness and Tolerance Data

Target 0.0456 in Average* 0.0423 in Average - Target -0.0033 in (-7.26%)
Standard Deviation* 0.0004 in (0.77%)

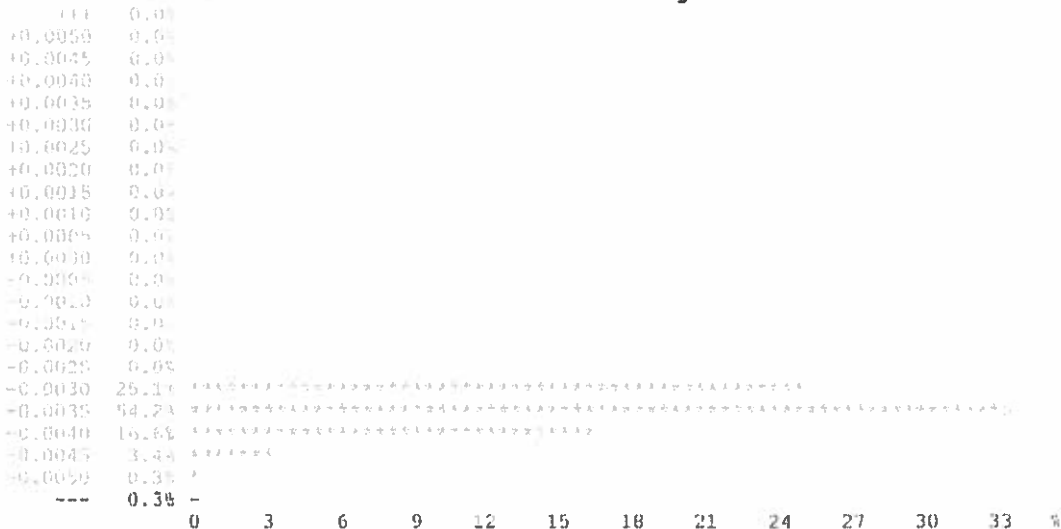
Length 1441 ft Above High Limit 0.0506 in 0.1% (0.0%)
Width 48.156 in In Tolerance 13.2% (0.0%)
Weight 9999 lbs Below Low Limit 0.0406 in 8 ft (0.3%)

Max Thickness 0.0429 in at 1124 ft Min Thickness 0.0401 in at 591 ft
Head Scrap 22 ft Tail Scrap 18 ft

Statistical Process Control Data

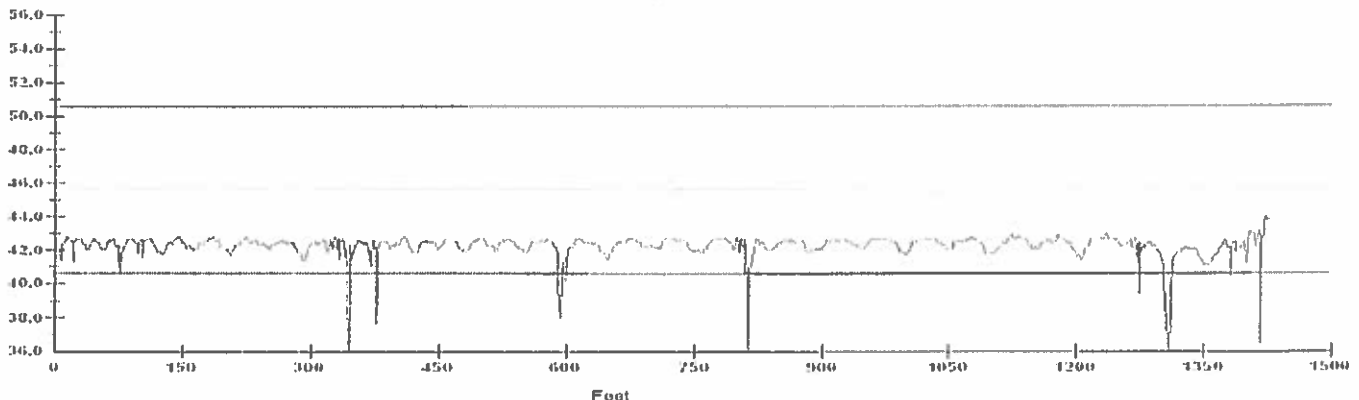
Upper Control Limit 0.0433 in Upper Tolerance Limit 0.0506 in
X Double Bar 0.0423 in R Bar 0.0011 in
Lower Control Limit 0.0412 in Lower Tolerance Limit 0.0406 in
CR 21.0% (Capability Ratio %, 100/CP)
CP 4.762 (Process Capability, HiLim-LowLim/6*Sigma)
CPK 1.610 (Capability vs Limits) TMW Ratio 0.960 (Low Limit/Avg)

Thickness Distribution Relative to the Target



0.0% is within ± 0.0010 in of the target 0.0% is within ± 0.0025 in of the target
99.7% is within ± 0.0050 in of the target 100.0% is within ± 0.0100 in of the target

Thickness vs Length (Coil Number 214500)



Gauge readings provided by Advanced Gauging Technologies, L.L.C. Plain City, OH 43064 USA Tel:(614) 873-6691