

Subject: Cleveland Process Audit

Date: October 30, 2015

Completed By: Steve Busicnki

On October 30, 2015, work order CLV 57826 was ran on the CR2 for Akro. Tag 216859 was verified prior to loading and use of the coil. The width of the material was measured when initially fed into the machine. The length of the sheet was measured when cut, before the bundle was started. One of the first pieces was measured for length, width, square, flatness and wave. The gauge of the material was measured with a micrometer at both edges and the crown. Based on the gauge report, 100.0% of the gauge was within the customer range.

Part Spec/PO Audit Form

Cust #	4295	Customer	Akro			Grp/Sz/Grd/Wdth	CRS / 0.0470 / CSB / 35.4370		
Equip/Plant	PWC CR2	Work Order #	CLV 57826	Date	10/30/2015	Part No.	R18GA35.4X24.0		
Work Order Information		Material to be Used				Actual			
		Tag #1	216859	Tag #2		Gauge #1	.0435 , .0440	Gauge #2	
		PO#	21978-001	PO#		% Gauge In Spec	100.00%	% Gauge In Spec	
Gauge Range	0.0430 - 0.0510	Gauge Min	.0422 Min	Gauge Min		Low/High Gauge	0.0434 / 0.0442	Low/High Gauge	
Width Range	35.432 - 35.442	Width	36.0000"	Width		Average	0.0438	Average	
Length Range	23.970 - 24.030					Width	35.4370	Width	
Rockwell		Rockwell		Rockwell		Length	24.0000	Length	
Tensile						Rockwell		Rockwell	
Yield		A1008 Cold							
% Elongation		Rolled Coil							
Chem Rqmts		CS-Type B							
Other Rqmts		.0422 Min							
		X 36.0000"				Other			
		1pcs 14,360lbs							
Summary									
Actions									
Final Status									

Machine # 2

Ordered RB: *yes*

1

[illegible]

AGT400 Coil Summary Report

Jemison Metals -- 75 Inch Red Bud CTL Line

Work Order: 57826 Coil Number: 216859

Customer Name: AKRO Heat Number: DUFNLK1558189 Vendor: DUFERCO

Product: Cold-Rolled Steel Oct-30-15 10:20 AM to 10:34 AM (clock 14.1 min/ run 2.1 min) Shift: 1

Average Thickness and Tolerance Data

Target	0.0470 in	Average*	0.0438 in	Average - Target	-0.0032 in (-6.72%)
				Standard Deviation*	0.0002 in (0.43%)
Length	83 ft	Above High Limit	0.0510 in	0 ft (0.0%)	
Width	36.156 in	In Tolerance		83 ft (100.0%)	
Weight	450 lbs	Below Low Limit	0.0430 in	0 ft (0.0%)	
Max Thickness	0.0442 in at	35 ft	Min Thickness	0.0434 in at	47 ft
Head Scrap	18 ft		Tail Scrap	6 ft	

Statistical Process Control Data

CR	15.0%	(Capability Ratio %, 100/CP)		
CP	6.667	(Process Capability, HiLim-LoLim/6*Sigma)		
CPK	1.400	(Capability vs Limits)	TMW Ratio	0.981 (Low Limit/Avg)

Thickness Distribution Relative to the Target

+++	0.0%
+0.0050	0.0%
+0.0045	0.0%
+0.0040	0.0%
+0.0035	0.0%
+0.0030	0.0%
+0.0025	0.0%
+0.0020	0.0%
+0.0015	0.0%
+0.0010	0.0%
+0.0005	0.0%
+0.0000	0.0%
-0.0005	0.0%
-0.0010	0.0%
-0.0015	0.0%
-0.0020	0.0%
-0.0025	0.0%
-0.0030	33.8% *****>
-0.0035	63.9% *****>
-0.0040	2.3% *****
-0.0045	0.0%
-0.0050	0.0%
---	0.0%

0 3 6 9 12 15 18 21 24 27 30 33 %

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

Thickness vs Length (Coil Number 216859)

