

Process Audit Summary:

1/18/16 Sumter Redbud Job# 59595

Performed by: Beverly Clem

Leveling job to produce 60" X various length sheets for Nordfab from master tag JD171.

All procedural coil identification checks followed.

Two skids produced at 60" X 75.5937", 2 skids produced at 60" X 69.0156", 5 skids produced at 60" X 56.4218 and 2 skids produced at 60 X 50.1562 sheets. All skids produced within max lifts and packaged and identified correctly per W/O instructions.

All procedural dimensional checks (Gauge-Width-Length-Square) were done per SMT-SRB-001 procedure and recorded on the FOP 081 in excess of required intervals. Low gauge of .035 ok per Tom. Nordfab specific checks done at required frequency. Measurements were performed with micrometer M-44, Dial indicator and flatness table 63294.

No follow up required.

Measuring Tools:

Micrometer – M-44 last calibration 10/1/15 calibration due 10/1/16

Flatness table – last calibration 4/20/15 calibration due 4/20/16

Dial indicator #1 –last calibration 12/21/2015 calibration due 3/21/2016

Controlled Documents:

SMT-SRB-001 Redbud Procedure REV 4 – 3/7/13

FOP 081 Cutline/Shear Inspection REV 1 – 2/16/01

JM-OP-001 Tagging Procedure REV 0 – 4/21/15

## Part Spec/PO Audit Form

Cust #	3037	Customer	NORDFAB		
Equip/Plant	SRB	Work Order #	59595	Date	1/18/2016
Work Order Information					
		Tag #1	JD171	Tag #2	
		PO#	004421-001	PO#	
Gauge Range	0.0356 - 0.0436	Gauge Min	.0386 N	Gauge Min	
Width Range	60.0000 - 60.2500	Width	60.0000	Width	
Length Range	75.5737 - 75.6137				
Rockwell	N/A	Rockwell	N/A	Rockwell	N/A
Tensile	N/A				
Yield	N/A				
% Elongation	N/A				
Chem Rqmts	N/A				
Other Rqmts	N/A				
SQ	0.00 - .08				
Summary					
Actions					
Final Status					

## Part Spec/PO Audit Form

Grp/Sz/Grd/Wdth	GVS/0.0396/CB90CD/60.0000		
Part No.	351M-2200-1PM00L		
Actual			
Gauge #1	.036 .036 .036	Gauge #2	
% Gauge In Spec	100%	% Gauge In Spec	
Low/High Gauge	0.0379/0.0349	Low/High Gauge	
Average	0.371	Average	
Width	60.0420	Width	
Length	75.6000	Length	
Rockwell	N/A	Rockwell	
SQ	> .08		
Other			

# AGT400 Coil Summary Report

## JEMISON METALS --

Job Number: 59595 Coil Number: JD171

Customer Number: NORDFAB Coil Information: SDIO Supplier: SDI COLUMBUS

Product: Steel Jan-18-16 18:07 to 20:24 (clock 136.9 min/ run 34.3 min) Shift: 2

### Average Thickness and Tolerance Data

Target 0.0396 in Average^ 0.0371 in Average - Target -0.0025 in (-6.39%)  
Standard Deviation^ 0.0004 in ( 1.06%)

Length 3113 ft Above High Limit 0.0436 in 0 ft ( 0.0%)  
Width 60.000 in In Tolerance 3113 ft (100.0%)  
Weight 23595 lbs Below Low Limit 0.0356 in 0 ft ( 0.0%)

Max Thickness 0.0379 in at 25 ft Min Thickness 0.0349 in at 3 ft

### Statistical Process Control Data

Upper Control Limit 0.0383 in Upper Tolerance Limit 0.0436 in  
X Double Bar 0.0371 in R Bar 0.0013 in  
Lower Control Limit 0.0358 in Lower Tolerance Limit 0.0356 in

CR 31.5% (Capability Ratio %, 100/CP)

CP 3.175 (Process Capability, HiLim-LoLim/6\*Sigma)

CPK 1.167 (Capability vs Limits) TMW Ratio 0.960 (Low Limit/Avg)

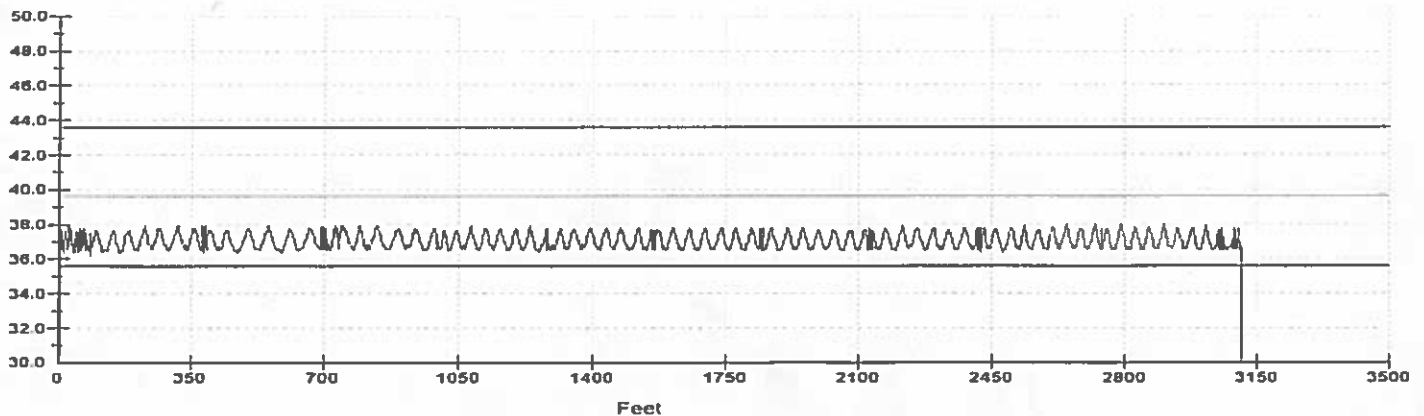
### Thickness Distribution Relative to the Target

```
+++ 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 20.2%
-0.0025 25.9%
-0.0030 47.6%
-0.0035 5.2%
-0.0040 0.0%
-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  $\pm 0.0010$  in of the target 46.2% is within  $\pm 0.0025$  in of the target  
100.0% is within  $\pm 0.0050$  in of the target 100.0% is within  $\pm 0.0100$  in of the target

Thickness vs Length (Coil Number JD171)



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