

Process/Product Audit Checklist

Cust #: <u>9060</u> Customer: <u>Tool & Die</u> GRP/Size/GRD/Width: <u>CRS/0.0478/DSB/42.4250"</u>				
PWC: <u>CR2</u> W/O#: <u>CLV 60878</u> Date: <u>06/28/16</u> Part #(s): <u>9060/18ga X 42.4250 X 79 CR DQ</u>				
Gauge Range: <u>0.0438-0.0518</u> Actual Gauge: <u>.0445/.045</u> Width Range: <u>42.4250-42.613</u> Width Actual: <u>42.562"</u>				
Length Range: <u>79.0000-79.2500</u> Length Actual: <u>79.125</u> Other: <u>Wave: 0-.12</u> Other Actual: <u><.120</u>				
Other: <u>Wt/Skd: 4000</u> Other Actual: <u>3995/1324</u> Other: _____ Other Actual: _____				
Item	YES	NO	N/A	Comments/Action Taken (Required for NO)
Process Inspection Sheets filled out according to <u>frequency</u> and <u>sampling</u> required?	X			
Correct raw material type and size?	X			Tag(s) to use: <u>220412</u> Tag(s) used: <u>220412</u>
Setup performed according to W/O?	X			
Product is acceptable according to customer-specific requirements? [Fab: Is the Part Print Present & the correct Revision? Are required measurements documented?]	X			[Fab: Print Rev: _____, W/O Rev: _____, Part Spec Rev: _____]
Packaging is acceptable according to customer-specific requirements?	X			JD3
Visual Inspection performed and product meets requirements?	X			
Out of spec noted, with actions taken?	X			
Non-conforming material put into reject warehouse and physically put into non-conforming area?	X			
Required gages available & functional?	X			
All Gages Calibrated (List in Comments)	X			Gages Observed (list last calibration and when due) Mic: ASP016 Last Cal: 06/16 Due: 07/16 Caliper: 120 Last Cal: 06/16 Due: 09/16 Tape: 2 Last Cal: 09/15 Due: 09/16
Housekeeping: Machine/Floor clean? Loose tags & paperwork cleaned up?	X			
Required PPE being worn?	X			Operators reminded about wearing gloves/glasses.
Forms are the latest revision per Quality Intranet?	X			List Forms (Observed Rev vs Intranet Rev) Quality Checklist Rev. Level 6 Int. Level 6 JDM13 11/30/2012 11/30/12
Hardcopy Controlled Documents are listed on Quality Intranet by location?	X			List Documents and their Location: Quality Policy Rev. 0 JDM200 05/15/2010

Date: 6-28-16	Customer: Tool & Die	Work Order # 60878	Machine # 2
Master Tag # 220412	Tag Weight: 13,000	Type: CR	Ordered RB: KA

Skid Tag#	Gauge Tolerance			Width Tol:	Length Tol:	Square Tol:	Flatness Tol:	Inspected By	Date
	Edge	Crown	Edge						
36114	0445	045	0445	+188 -6	+25 -20	Yes	-12	Jan m m	6-28
Last piece of 1st bundle	0445	045	0445	42.542	79.125	%	<120	Jan m m	6-28

[illegible][illegible]

AGT400 Coil Summary Report

Jemison Metals -- 75 Inch Red Bud CTL Line

Work Order: 60878 Coil Number: 220412

Customer Name: TOOL DIE Heat Number: DUFNLK1564166 Vendor: NLMK

Product: Cold-Rolled Steel Jun-28-16 1:54 PM to 2:43 PM (clock 48.6 min/ run 14.8 min) Shift: 1

Average Thickness and Tolerance Data

Target 0.0478 in Average* 0.0449 in Average - Target -0.0029 in (-6.07%)
Standard Deviation* 0.0003 in (0.63%)

Length 1944 ft Above High Limit 0.0518 in 0 ft (0.0%)
Width 42.562 in In Tolerance 1943 ft (100.0%)
Weight 12659 lbs Below Low Limit 0.0438 in 1 ft (0.0%)

Max Thickness 0.0456 in at 666 ft Min Thickness 0.0437 in at 590 ft
Head Scrap 10 ft Tail Scrap 44 ft

Statistical Process Control Data

CR 22.5% (Capability Ratio %, 100/CP)
CP 4.444 (Process Capability, HiLim-LoLim/6*Sigma)
CPK 1.222 (Capability vs Limits) TMW Ratio 0.976 (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	10.3%	*****
-0.0030	57.5%	*****>
-0.0035	30.4%	*****
-0.0040	1.8%	****
-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 10.3% 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 220412)

