23Apr19 11:23 J O B W O R K O R D E R CLV 72155

Jemison Metals - Cleveland
8100 Aetna Drive
Cleveland, OH 44105
Tel: 216-271-1500 Fax: 216-271-0013

Job Type SLT Process PWC CLO
Metric N Cust
Desc CARLISLE PPAP
Due Date 25Apr19 Whs CFG
Setup 00:00 Run 02:00 Prtd By kathym

<<< JOB SPECIFICATIONS >>>

Group CRC Grade C1020 Gauge 0.0480 (0.0480 to 0.0520) ID 20.0000

<<< ORDER SPECIFICATIONS >>>

R 01 CRC/18D/C1020/10.3100"/.0480M C 1020
Part 6920/DO11697.
Ga Rng 0.0480to 0.0520 Pc/Tag Ga 0.0480 Wth 10.3100 Lth
WthTol + 0.0320 - 0.0320 Wt/Skd 6000 ID 20.00 MnOD 54.88 MxOD MnWgt MxWgt 6000
LthTol + 0.0000 - 0.0000 Ty J9 Pk
RB:0.00-102.00

****

FORKLIFT REAR UNLOAD

EACH COIL MUST BE SINGLE STACKED
EYE TO SKY ON PALLET

WIRE 4X4 SAMPLE ONTO EACH COIL

BURR TOLERANCE: .005

MUST HAVE A MINIMUM OF 13/16" SPACERS

MUST SHOW TARE WEIGHT

MUST BE TARPED OR WEATHER PROTECTED

****

MUST CHECK AND RECORD WIDTH AT START OF SLITTING.
LEAD OPERATOR NEEDS TO VERIFY MEASUREMENT AGAINST
THE WORK ORDER AND SIGN OFF ON THE PRODUCTION
RECORD AS A DOUBLE CHECK

****

Slitter supervisor to watch all CBF production
runs for oscillation or separator damage. Banding
line operators will monitor both sides of all CBF
coils and sign off on CBF work orders

****

<<< ARBOR SET UP >>>

1	2	3	4
10.3100	10.3100	10.3100	10.3100

Arbor Recap: 4 X 10.3100 Total Width: 41.2400

<<< PROCESSING INSTRUCTIONS >>>

<Set 1, Step 1> Cut as follows:
1Pcs, 2Pass, Cut Full, Run @ Pos 1- 4,To OD, Lgth, PIW

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Jemison Metals - Cleveland

Use Tags:				ID Wdth	OD Wdth
DU14624 CPW	0.0510N	43.5000	✓	0.0000	0.0000

<<< MATERIAL TO BE USED >>>

Tag No	Whs	Gauge	Width	Length	PCS	Weight	Heat Number	Locn
<CRC/18D/C1020>								
DU14624	CPW	0.0510N	43.5000		1	36170	NLMNLK1757884	B12/326
Rmks: *Trial Material-do not setup released by RICK R*								
				Total:	1	36170		

<<< MATERIAL TO STOCK >>>

Cons Tg Spc	Prod Tg	Whs	Ty	Gauge	Width	Length		OD	PCS<Prn>Wt	PCS<Res>Wt
DU14624										
1	238805	CPW	R	0.0480	10.3100	2545	F	47.60	1 4286	
1	238806	CPW	R	0.0480	10.3100	2545	F	47.60	1 4286	
1	238807	CPW	R	0.0480	10.3100	2545	F	47.60	1 4286	
1	238808	CPW	R	0.0480	10.3100	2545	F	47.60	1 4286	
1	238809	CPW	R	0.0480	10.3100	2545	F	47.60	1 4286	
1	238810	CPW	R	0.0480	10.3100	2545	F	47.60	1 4286	
1	238811	CPW	R	0.0480	10.3100	2545	F	47.60	1 4286	
1	238812	CPW	R	0.0480	10.3100	2545	F	47.60	1 4286	
								Total:	8 34,288	

<<< JOB RECAP >>>

	PCS	Weight	Scrap	Scrap %	Unactd Scr	%
Material Allocated	1	36,170				
Master Returns						
Returns to Stock						
Work in Process						
Material to be Shipped						
Rejects	8	34,288				
Net Weight to be Produced					1,882	5.20

START TIME: 9:10AM STOP TIME: 11:30AM

Apr. 25. 2019

Slit Size Inspection

Date: Apr. 25. 2019 Work Order: CLV72155

Size of Cuts	Beginning Width	Beginning Mics	(Paxson Only) Middle Mics	End Width	End Mics
10.310	10.320	.050	Spl+ @ 13 11/16	10.320	.051
|	10.320.5	.050.5		10.320	.051.5
|	10.320.5	.051		10.321	.051.5
|	10.320.5	.052		10. 321	.050
1.750			Scrap Cut	↑	
				↑	
Measurement @ Split				↑	
	↓		Tail	Measurement	
10.310	10.320	.051		10.319	051
~~10.310~~	10.320	.051		10.320	052
|	10.321	.052		10.320	052
|	10.321	.050		10.321	051

Yes*/No** (If Yes, Description)

Non-Conformance

Surface Defects: NO

Burrs: OK

Shape Defects: NONE SEEN

*Need Resolution, OK'd or Segragated

**No Non-Conformance Present

Initials

Operator	Helper
J.P.	T.R.

Slitting Order

Date: 4/25/19	Customer: Carlisle PPAP
Work Order #: CLV72155	Date Run: Apr. 25. 2019

Incoming Inspection Checklist

Tag #	Gauge & Width	Type	Tag Wgt.	RB	Olsen	Actual Wgt.	Width	Mic
AU114624	.051 N x 43.500	CRC	36,170	56	—	36,170	43 9/16	.050 5 / .052

Cutting Instructions: 4 Cuts - 10.310

Slit Tolerance: + - .032	Max O.D: Split	Max Skid Wgt: 6,000	I.D: 20"
Gauge Range: .048 / .052		Salesman:	

Special Instructions:

1 Cuts with some defect but okay to ship

Cut Size ____

Cut Weight ____

Defect ____

Approved By ____

2 Cuts Rejected

Cut Size ____

Cut Weight ____

Tag No. or No.'s ____

Reason for Reject ____

3 Ok to move material for shipment or to Stock

Name ____

Date ____

Process/Product Audit Checklist

Cust #: 6920 Customer: CARLISLE GRP/Size/GRD/Width: CRC-IBD-C1020/10.3/

PWC: CL-O W/O#: 72155 Date: 4-25-19 Part #(s): D011697 Auditor: _____

Gauge Range: .048-.052 Actual Gauge: _____ Width Range: 10.278/10.342 Width Actual: 10.320

Length Range: N/A Length Actual: N/A Other: RB 102 Other Actual: 56

Other: _____ Other Actual: _____ Other: _____ Other Actual: _____

Item	YES	NO	N/A	Comments/Action Taken (Required for NO)
Process Inspection Sheets filled out according to frequency and sampling required?	✓			
Correct raw material type and size?	✓			Tag(s) to use: DU 14624 Tag(s) used: DU 14624
Setup performed according to W/O?	✓			
Product is acceptable according to customer-specific requirements? [**Fab:** Is the Part Print Present & the correct Revision? Are required measurements documented?]	✓			[**Fab:** Print Rev:_____, W/O Rev:_____, Part Spec Rev:_____] (Leave blank if non-Fab audit)
Packaging is acceptable according to customer-specific requirements?	✓			
Visual Inspection performed and product meets requirements?	✓			
Out of spec noted, with actions taken?		✓	✓	
Non-conforming material put into reject warehouse and physically put into non-conforming area?			✓	
Required gages available & functional?	✓			
All Gages Calibrated (List in Comments)	✓			Gages Observed (list last calibration and when due) 24" CALIPER ID 120 3/19 / 6/18 1" MIC ID RB121 3/19 / 5/19 ADVANCE GAUGE 3/27 / 9/30
Housekeeping: Machine/Floor clean? Loose tags & paperwork cleaned up?	✓			
Required PPE being worn?	✓			
Forms are the latest revision per Quality Intranet?	✓			List Forms (Observed Rev vs Intranet Rev)
Hardcopy Controlled Documents are listed on Quality Intranet by location?	✓			List Documents and their Location:

CLV-SL-001	Slitter Procedure

Loopco (Slitter) Procedure

1. Slitter schedule to be used to stage coils in the order of use. If lineup is changed, Production Planner or Plant Manager will notify Slitter Operator and correct the schedule.
2. Use Work Orders "Order Spec" and "Arbor Setup" sections to determine sizes that will be input into C.A.S.S. system, which produces Arbor setup print out.
3. Coil is loaded onto slitter and tag is given to Slitter Operator to verify that the correct coil is fed up per the work order.
4. Operator loads the gauge range from the "Job Specifications" section of the Work Order into Gamma Computer.
5. Operator checks knife clearance, if clearance is correct, material is fed through knives. If clearance is incorrect, necessary adjustments are made.
6. Operator checks burr, gauge (edge-crown-edge) and Rockwell (if required). Information is recorded on JDM 3 or JDM 4.
7. Cuts ran out on table and checked for width, also recorded on JDM 3 or JDM 4.
8. Width of master coil, at entry side of knives checked per Inspection Checkpoints 8.3.3.
9. Operator & Helper inspect material during processing for any defects that do not meet specifications (Work Order Info).
10. If any check does not meet the Customer Part Specification/Job Requirements, QA (or Plant Manager) is notified and will contact sales with the information.
11. Sales to contact customer for deviation (if OK, this is noted on work order). Also, on occasion, based on knowledge of sales or customer needs, sales may also OK without notifying customer. If not OK'd by customer, Production Planner is notified so coil can be replaced. Status of removed coil to be determined at this time. (Typical dispositions include: placing in reject warehouse for MRB disposition, or application to another customer.)
12. Slit product is run to customer OD specification and banded to specification.
13. Material is packaged to specification, weighed & tagged, and moved to appropriate warehouse.

Revision Date	Revision Level	Changes Made
03/07/13	1	#4 Clarified data input for Gamma Computer
03/23/11	0	Original Version

AGT400 Coil Summary Report

Jemison Metals -- 60 Inch Loopco Slitter

Work Order: CLV 72155 Coil Number: DU14624

Customer Name: CARLISLE PPAP Heat Number: NLMNLK1757884

Product: Cold-Rolled Steel Apr-25-19 10:53 AM to 11:26 AM (clock 32.8 min/ run 19.6 min) Shift: 1

Average Thickness and Tolerance Data

Target	50.0 mil	Average^	50.1 mil	Average - Target	0.1300 mil (0.26%)
				Standard Deviation^	0.4300 mil (0.86%)
Length	4723 ft				
Width	43.625 in				
Weight	35202 lbs				
				Above High Limit 52.0 mil	0 ft (0.0%)
				In Tolerance	4723 ft (100.0%)
				Below Low Limit 48.0 mil	0 ft (0.0%)
Max Thickness	52.0 mil at	38 ft		Min Thickness	48.1 mil at 4699 ft
Head Scrap	0 ft			Tail Scrap	0 ft

Statistical Process Control Data

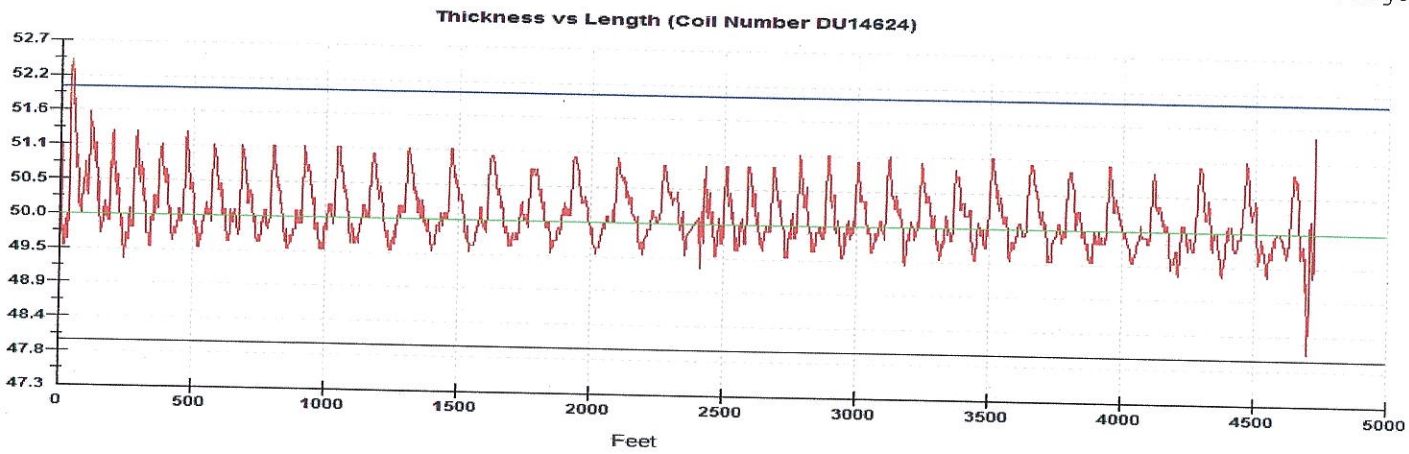
Upper Control Limit	51.4 mil	Upper Tolerance Limit	52.0 mil
X Double Bar	50.1 mil	R Bar	1.3 mil
Lower Control Limit	48.8 mil	Lower Tolerance Limit	48.0 mil

CR 64.5% (Capability Ratio %, 100/CP)
CP 1.550 (Process Capability, HiLim-LoLim/6*Sigma)
CPK 1.450 (Capability vs Limits) TMW Ratio 0.958(Low Limit/Avg)

Thickness Distribution Relative to the Target

```
  +++   0.0%
+ 5.0   0.0%
+ 4.5   0.0%
+ 4.0   0.0%
+ 3.5   0.0%
+ 3.0   0.0%
+ 2.5   0.0%
+ 2.0   0.0%
+ 1.5   0.3% *
+ 1.0   4.3% *********
+ 0.5  18.3% ************************************
+ 0.0  37.5% ************************************************************************>
--0.5  38.4% ************************************************************************>
--1.0   0.9% **
--1.5   0.1%
--2.0   0.1%
--2.5   0.0%
--3.0   0.0%
--3.5   0.0%
--4.0   0.0%
--4.5   0.0%
--5.0   0.0%
 ---   0.0%
       0    3    6    9   12   15   18   21   24   27   30   33   %
```

99.5% is within ± 1.0000 mil of the target 100.0% is within ± 2.5000 mil of the target
100.0% is within ± 5.0000 mil of the target 100.0% is within ± 10.0000 mil of the target



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

It is the Users' Responsibility to Verify that all Input and Output is Accurate and the Setup is Safe

Greer Steel Company
624 Boulevard
Dover, OH 44622

Run Date: 04/25/2019
Run Time: 8:44:51 AM
User: CARSWIN

Customer: CARLISLE
Order No: CLV 72155

Job Number: PPAP
Order Date: 04/25/2019

Master Coil Information:

Gauge(s)	Width(s)	Weight	PIW	Coil Usage	Coil Remain	Horizontal Clearances
0.0900	43.5000	36,170	831.49	43.0500 / 43.5000 / 98.97 %	0.4500 / 43.5000 / 1.03 %	0.0090 / 0.0090 / 10.00 % / 10.00 %

Strip Width Requirements:

Coil ID	Strip Qty	Strip Width	Mult Wt	Weight Strip	Knife Sizes One	Knife Sizes Two	Strip Clear	Comments
A	4	10.3250	8585	2146	0.5000	0.5000	0.0180	
B	1	1.7500	1455	1455	0.5000	0.5000	0.0180	

Spacer Requirements:

Spacer Size	Quantity Required	Spacer Identity
0.0500	10	Steel
0.0510	5	Steel
0.0520	10	Steel
0.0540	5	Steel
0.0580	5	Steel
0.0650	5	Steel
0.0800	3	Steel
0.1000	9	Steel
0.2000	6	Steel
0.4000	7	Steel
0.8000	5	Steel
1.6000	7	Steel
3.2000	30	Steel
Total:	107	

The Arbor Setup - Arbor #1 - 60" — Strip Width Details

Edge Trim: 0.2250
Single Clear: 0.0090

Bottom Arbor Shoulder		
1	Steel	0.0510
1	Steel	0.0580
1	Steel	0.4000
Totals =>>>>		0.5090
1	.500	0.5000
1	Steel	0.0500
1	Steel	0.0510
1	Steel	0.0520
1	Steel	0.0540
1	Steel	0.1000
1	Steel	0.2000
1	Steel	0.8000
1	Steel	1.6000
2	Steel	3.2000
Totals =>>>>		9.3070
1	Black	0.8000
1	Black	1.6000
2	Black	3.2000
Totals =>>>>		8.8000
1	.500	0.5000
1	Steel	0.0500
1	Steel	0.0520
1	Steel	0.0580
1	Steel	0.0650
1	Steel	0.1000
1	Steel	0.4000
3	Steel	3.2000
Totals =>>>>		10.3250
1	Red	0.2000
3	Red	3.2000
Totals =>>>>		9.8000
1	.500	0.5000
1	Steel	0.0500
1	Steel	0.0510
1	Steel	0.0520
1	Steel	0.0540
1	Steel	0.1000
1	Steel	0.2000
1	Steel	0.8000
1	Steel	1.6000
2	Steel	3.2000
Totals =>>>>		9.3070
1	Black	0.8000
1	Black	1.6000
2	Black	3.2000
Totals =>>>>		8.8000

Top Arbor Shoulder		
Totals =>>>>		0.0000
1	.500	0.5000
1	Steel	0.0500
1	Steel	0.0520
1	Steel	0.0580
1	Steel	0.0650
1	Steel	0.1000
1	Steel	0.4000
3	Steel	3.2000
Totals =>>>>		10.3250
1	Red	0.2000
3	Red	3.2000
Totals =>>>>		9.8000
1	.500	0.5000
1	Steel	0.0500
1	Steel	0.0510
1	Steel	0.0520
1	Steel	0.0540
1	Steel	0.1000
1	Steel	0.2000
1	Steel	0.8000
1	Steel	1.6000
2	Steel	3.2000
Totals =>>>>		9.3070
1	Black	0.8000
1	Black	1.6000
2	Black	3.2000
Totals =>>>>		8.8000
1	.500	0.5000
1	Steel	0.0500
1	Steel	0.0520
1	Steel	0.0580
1	Steel	0.0650
1	Steel	0.1000
1	Steel	0.4000
3	Steel	3.2000
Totals =>>>>		10.3250
1	Red	0.2000
3	Red	3.2000
Totals =>>>>		9.8000

Coil ID: A
Quantity: 4
Strip Width: 10.3250
Coil Weight: 8585
Total Weight: 34340
Strip Clearance: 0.0180
Comment:

Packing %-Female: 94.92 / 95.00
Packing %-Male: 94.55 / 95.00

Coil ID: A
Quantity: 4
Strip Width: 10.3250
Coil Weight: 8585
Total Weight: 34340
Strip Clearance: 0.0180
Comment:

Packing %-Female: 94.92 / 95.00
Packing %-Male: 94.55 / 95.00

Coil ID: A
Quantity: 4
Strip Width: 10.3250
Coil Weight: 8585
Total Weight: 34340
Strip Clearance: 0.0180
Comment:

Packing %-Female: 94.92 / 95.00
Packing %-Male: 94.55 / 95.00

1	.500	0.5000
1	Steel	0.0500
1	Steel	0.0520
1	Steel	0.0580
1	Steel	0.0650
1	Steel	0.1000
1	Steel	0.4000
3	Steel	3.2000
Totals =>>>>		10.3250
1	Red	0.2000
3	Red	3.2000
Totals =>>>>		9.8000

1	.500	0.5000
1	Steel	0.0520
1	Steel	0.0800
1	Steel	0.2000
1	Steel	0.4000
Totals =>>>>		0.7320
1	Black	0.2000
1	Black	0.4000
Totals =>>>>		0.6000

1	.500	0.5000
1	Steel	0.0650
1	Steel	0.0800
1	Steel	0.2000
1	Steel	0.8000
1	Steel	1.6000
5	Steel	3.2000
Totals =>>>>		18.7450

Bottom Arbor End Nut

1	.500	0.5000
1	Steel	0.0500
1	Steel	0.0510
1	Steel	0.0520
1	Steel	0.0540
1	Steel	0.1000
1	Steel	0.2000
1	Steel	0.8000
1	Steel	1.6000
2	Steel	3.2000
Totals =>>>>		9.3070
1	Black	0.8000
1	Black	1.6000
2	Black	3.2000
Totals =>>>>		8.8000

1	.500	0.5000
1	Steel	0.0500
1	Steel	0.1000
1	Steel	1.6000
Totals =>>>>		1.7500
1	Red	1.6000
Totals =>>>>		1.6000

1	.500	0.5000
1	Steel	0.0500
1	Steel	0.0520
1	Steel	0.0540
1	Steel	0.0800
1	Steel	0.4000
1	Steel	1.6000
5	Steel	3.2000
Totals =>>>>		18.2360

Top Arbor End Nut

Coil ID:	A
Quantity:	4
Strip Width:	10.3250
Coil Weight:	8585
Total Weight:	34340
Strip Clearance:	0.0180
Comment:	
Packing %-Female:	94.92 / 95.00
Packing %-Male:	94.55 / 95.00

Coil ID:	B
Quantity:	1
Strip Width:	1.7500
Coil Weight:	1455
Total Weight:	1455
Strip Clearance:	0.0180
Comment:	
Packing %-Female:	91.43 / 95.00
Packing %-Male:	81.97 / 95.00

Edge Trim: 0.2250

Jemison Metals - Cleveland

17Apr18

B

DU14624

Loc:
Std:
Whs: CPW

A1008 COLD ROLLED COIL C 1020 .0510 Nom X 43.5000"

1 PCS **36,170 LBS**

Receiving Info

Supplier NLMK (# 833)
Supl Tag 2355051
PO 25258-001 RC 46686-001 Job Mst Prn
By sandy
Pk Qty 36,170 LBS Th Qty 0 LBS

Specifications

Heat No :NLM NLK1757884
Spec :

Condition :

Gauge	Min:	0.0000	Max :	0.0000
Width	Min:	.0000	Max :	.0000
Length	Min:	.0000	Max :	.0000

ID: OD:
4735 FT Typ:A

Chemistry :C=0.2000 Mn=0.5400 P=0.0120 S=0.0080
Si=0.0200 N=0.0040 Cr=0.0160 Mo=0.0020
Cu=0.0170 Al=0.0480 V=0.0020 Ti=0.0010
Ni=0.0080 Nb=0.0020 Sn=0.0010 B=0.0002

Remarks :*Trial Material-do not setup released by RICK R*

DU14624

DU14624 Whs:CPW (CRC/18D/C1020)
A1008 COLD ROLLED COIL C 1020
.0510 Nom X 43.5000"
PO 25258-001 RC 46686-001 Job Date 17Apr18
Supplier NLMK (# 833)

Sup Tg 2355051 1 PCS 36,170 LBS

Prn