

Production Order: 500000294403



Production Order Document
Production Order Qty: 500

PC
Sheet: 1 of 1

Material: SA0155-01 Rev F

Material Type: ZFRT Description: Edwards Flex Shaft Commander 155885

Order Type: ZSTD

Production Version: 7987

Project Phase:

Plant / Business Unit: 1213 / AC5

Opr No.	Planned WorkCenter Description	Operation Details	Comp. Qty.	Scrap Qty & Desc.	Date Comp.	Initials																							
50	KITTING3 Kitting Devices 	<p>Kitting Devices</p> <p>Perform Order Kitting, Load Minor Mandrels, Dry Extrusions, and Cut FEP</p> <p>Record Time Extrusions Enter Dryer (Initial/Time/Date): <u>K102 5:20am 08 Jun 24</u></p> <p>Record Time Extrusions First Exit Dryer (Initial/Time/Date): <u>GSE05 9:30AM 09 Jun 24</u></p> <p>Record Dryer Shelf #: <u>N/A</u></p> <table border="1"> <thead> <tr> <th>Component Number</th> <th>Req'd Rev Rev Used</th> <th>UOM</th> <th>Qty.</th> <th>Batch No.</th> <th>Actual Qty Used</th> </tr> </thead> <tbody> <tr> <td>MM0179-01</td> <td>D <u>D</u></td> <td>PC</td> <td>500</td> <td><u>0000276172</u></td> <td><u>500</u></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td><u>N/A</u></td> <td><u>N/A</u></td> </tr> <tr> <td>MM1536-01</td> <td>B <u>B</u></td> <td>PC</td> <td>500</td> <td><u>0000281412</u></td> <td><u>500</u></td> </tr> </tbody> </table>	Component Number	Req'd Rev Rev Used	UOM	Qty.	Batch No.	Actual Qty Used	MM0179-01	D <u>D</u>	PC	500	<u>0000276172</u>	<u>500</u>					<u>N/A</u>	<u>N/A</u>	MM1536-01	B <u>B</u>	PC	500	<u>0000281412</u>	<u>500</u>	N/A	N/A	07Jun24 DKO0
Component Number	Req'd Rev Rev Used	UOM	Qty.	Batch No.	Actual Qty Used																								
MM0179-01	D <u>D</u>	PC	500	<u>0000276172</u>	<u>500</u>																								
				<u>N/A</u>	<u>N/A</u>																								
MM1536-01	B <u>B</u>	PC	500	<u>0000281412</u>	<u>500</u>																								

Notes: DA 2484, 2564.

N/A

N/A

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NP	N/A	RM0158-01	E	<u>E</u>	PC	200	N/A 58497	N/A 150		
		1000-1153-01	A	<u>A</u>	PC	594	N/A 87011 87012 87013	N/A 200 200		
		1000-2053-01	A	<u>A</u>	PC	500	0000278880	500		
		MM1537-02	A	<u>A</u>	PC	500	0000276175	N/A	N/A	N/A
		TL0167-02	E	<u>E</u>	PC	70	N/A	Bulk		
		TL0165-05	J	<u>J</u>	PC	5	N/A	Bulk		
		TL0165-03	J	<u>J</u>	PC	5	N/A	Bulk		

Notes:

NP

N/A

MA

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MA	N/A	141967-01	02	02	PC	500	82899 85678	514 6			
		RM7349-02	C	C	PC	543	82565 82566	250 288			
		RM7348-01	C	C	PC	500	82883 78687 78688	200 200 100	N/A	N/A	N/A
		RM4001-01	B	B	PC	125	82434 N/A	100 N/A			
		RM0607-01	D	D	PC	56	74662 N/A	37 N/A			
		RM0498-01	C	C	PC	500	0000275489 0000287518 0000287519	370 20 86			
		RM0009-04	I	I	PC	1	82971 N/A	Bulk Bulk			
		RM0009-04	I	I	PC	1	82971	Bulk			

Notes:

N/A

N/A
N/A

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Opr No.	Planned WorkCenter Description	Operation Details					Comp. Qty.	Scrap Qty & Desc.	Date Comp.	Initials
N/A	MM1538-01	A	<u>A</u>	PC	500	<u>0000278970</u>	<u>Bulk</u>			
						<u>N/A</u>	<u>500</u>			
		A	<u>A</u>	PC	1000	<u>0000281413</u>	<u>N/A</u>			
						<u>N/A</u>	<u>1060</u>			
		C	<u>C</u>	PC	500	<u>0000278966</u>	<u>N/A</u>			
						<u>N/A</u>	<u>500</u>			
		E	<u>E</u>	PC	500	<u>0000282489</u>	<u>N/A</u>			
						<u>0000275691</u>	<u>400</u>			
N/A	MM0178-01	E	<u>F</u>	PC	500	<u>0000276174</u>	<u>100</u>			
						<u>0000265872</u>	<u>500</u>			
		D	<u>D</u>	PC	500	<u>0000281411</u>	<u>40</u>			
N/A	MM0176-01					<u>0000271036</u>	<u>500</u>			
		G	<u>G</u>	PC	500	<u>0000291637</u>	<u>40</u>			
						<u>N/A</u>	<u>522</u>			
							<u>N/A</u>			

Notes:

N/A

N/A

N/A

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N/A	N/A	N/A	N/A	N/A	N/A	N/A
100	CATASY01 Catheter Assembly 1 	Line Clearance Perform Line Clearance and Heat Gun Setting	500	0	09Jan24	KL95
	Line Clearance Confirmation Reqd(Milestone)					
150	CATASY01 Catheter Assembly 1 	Major and Minor Mandrel Assembly	500	0	09Jan24	NK62 pm96 CL30 Y014
	Major and Minor Mandrel Assembly					
Notes:						
N/A						
N/A						
N/A						

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Opr No.	Planned WorkCenter Description	Operation Details	Comp. Qty.	Scrap Qty & Desc.	Date Comp.	Initials
N/A	Confirmation Reqd(Milestone)	N/A	N/A	N/A	N/A	N/A
200	CATASY01 Catheter Assembly 1  Loading Braid Stock Loading Braid Stock Confirmation Reqd(Milestone)	Loading Braid Stock	500	0	09Jan24	ST96 ny35
250	CATASY01 Catheter Assembly 1  Trim Braid Wire at Proximal End	Trim Braid Wire at Proximal End	500	0	09Jan24	VPC-2 C497 AS31 V078 ny36

Notes:

N/A
N/A
N/A

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Opr No.	Planned WorkCenter Description	Operation Details	Comp. Qty.	Scrap Qty & Desc.	Date Comp.	Initials
N/A	Trim Braid Wire at Proximal End Confirmation Reqd(Milestone)	N/A	① 500	0	0	
300	CATASY01 Catheter Assembly 1 	Insert Cut Hypo Tube Insert Cut Hypo Tube Confirmation Reqd(Milestone)	500	0	09Jan24 VR25 LM46 CP32 GS22	
350	CATASY01 Catheter Assembly 1	Load Tubing	500	0	09Jan24 PL34 LM46 CLOS GS22	
Notes:						
N/A						
N/A						
N/A						

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① MM02 09Jan24

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Opr No.	Planned WorkCenter Description	Operation Details	Comp. Qty.	Scrap Qty & Desc.	Date Comp.	Initials
N/A	 Load Tubing Confirmation Reqd(Milestone)	N/A	N/A	N/A	N/A	N/A
400	CATASY01 Catheter Assembly 1 Reflow Confirmation Reqd(Milestone)	Reflow	500	0	09Jan24	AX05 PM96 RN27 SX60 SH85
450	CATASY01 Catheter	FEP Removal	500	0	09Jan24	PM96 JY90
Notes: N/A N/A N/A						

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	Assembly 1 		N/A	N/A	N/A	N/A
N/A	FEP Removal	N/A				
	Confirmation Reqd(Milestone)					
500	CATASY01 Catheter Assembly 1 	In-process Inspection and Rework Material Consumed: Part #: 1000-1153-01 Batch #: 871060 Qty: 12 Part #: N/A Batch #: N/A Qty: N/A Part #: N/A Batch #: N/A Qty: N/A Part #: N/A Batch #: N/A Qty: N/A Part #: N/A Batch #: N/A Qty: N/A	468 ① 486	OF - II EW - II EW - HII OF - HII ⑯	09Jan24 14	LL61 VC09 CB81 R66 MV78 TD45
N/A	In-process Inspection and Rework					
	Confirmation Reqd(Milestone)					
N/A	N/A	N/A	N/A	N/A	N/A	N/A
Notes:						
N/A						
N/A						
N/A						

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Opr No.	Planned WorkCenter Description	Operation Details	Comp. Qty.	Scrap Qty & Desc.	Date Comp.	Initials
550	CATASY01 Catheter Assembly 1 	Remove Heat Shrink & Mandrel Remove Heat Shrink & Mandrel Confirmation Reqd(Milestone)	486	0	09Jan24	R523 VA96 AX82 DX35 ML38
600	CATASY01 Catheter Assembly 1 Distal Tip Assembly Confirmation	Distal Tip Assembly	475	M4H-111 DL-1 MAS-HH11 11	09Jan24	F301 AX82 AT39 SV46

Notes:

N/A
N/A
N/A

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N/A	Reqd(Milestone)	N/A	N/A	N/A	N/A	N/A
650	CATASY01 Catheter Assembly 1  Loading Heat Shrink Confirmation Reqd(Milestone)	Loading Heat Shrink	475	0	09 Jan 24 MM02	AX82 DU39 MM02
700	CATASY01 Catheter Assembly 1  Tipping	Tipping Record Tipping Oven Information: TMI: 0521 Cal Due: 31 May 24 TMI: 0386 Cal Due: 31 May 24 TMI: 2083 C Cal Due: 31 May 24 TMI: 0936 A Cal Due: 31 May 24	475	0	09 Jan 24 MM02	Hv36 MM02

Notes:

N/A

N/A

N/A

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Opr No.	Planned WorkCenter Description	Operation Details	Comp. Qty.	Scrap Qty & Desc.	Date Comp.	Initials															
N/A	Confirmation Reqd(Milestone)	N/A	N/A	N/A	N/A	N/A															
750	CATASY01 Catheter Assembly 1 	<p>Tip Inspection/ Flash Removal</p> <p>Material Consumed:</p> <table> <tr> <td>Part #: <u>RM4001-01</u></td> <td>Batch #: <u>82434</u></td> <td>Qty: <u>5</u></td> </tr> <tr> <td>Part #: <u>RM6007-01</u></td> <td>Batch #: <u>74662</u></td> <td>Qty: <u>3</u></td> </tr> <tr> <td>Part #: <u>N/A</u></td> <td>Batch #: <u>N/A</u></td> <td>Qty: <u>N/A</u></td> </tr> <tr> <td>Part #: <u>N/A</u></td> <td>Batch #: <u>N/A</u></td> <td>Qty: <u>N/A</u></td> </tr> <tr> <td>Part #: <u>N/A</u></td> <td>Batch #: <u>N/A</u></td> <td>Qty: <u>N/A</u></td> </tr> </table>	Part #: <u>RM4001-01</u>	Batch #: <u>82434</u>	Qty: <u>5</u>	Part #: <u>RM6007-01</u>	Batch #: <u>74662</u>	Qty: <u>3</u>	Part #: <u>N/A</u>	Batch #: <u>N/A</u>	Qty: <u>N/A</u>	Part #: <u>N/A</u>	Batch #: <u>N/A</u>	Qty: <u>N/A</u>	Part #: <u>N/A</u>	Batch #: <u>N/A</u>	Qty: <u>N/A</u>	475	O	09Jan24	STX48 Hv36 HT72
Part #: <u>RM4001-01</u>	Batch #: <u>82434</u>	Qty: <u>5</u>																			
Part #: <u>RM6007-01</u>	Batch #: <u>74662</u>	Qty: <u>3</u>																			
Part #: <u>N/A</u>	Batch #: <u>N/A</u>	Qty: <u>N/A</u>																			
Part #: <u>N/A</u>	Batch #: <u>N/A</u>	Qty: <u>N/A</u>																			
Part #: <u>N/A</u>	Batch #: <u>N/A</u>	Qty: <u>N/A</u>																			
800	CATASY01 Catheter Assembly 1 	Major Mandrel Removal	469	ACD-#H1	09Jun24	SS44 SG88 AT39															

Notes:

N/A

N/A

N/A

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N/A	Major Mandrel Removal Confirmation Reqd(Milestone)	N/A	N/A	N/A	N/A	N/A
850	CATASY01 Catheter Assembly 1  Cut to Length Confirmation Reqd(Milestone)	Cut to Length Record DIM05 gage result for the first 5 parts at the start of operation: 1. <u>passed</u> 2. <u>passed</u> 3. <u>passed</u> 4. <u>passed</u> 5. <u>passed</u>	469	O 10Jan24	ML65 FS52	
900	QUALITY1 Quality Inspection & Review	Quality Inspection and Review Perform Quality Inspection per QIP Document #3107610 Record Data in SAP ROS	N/A	N/A	N/A	MV33 TRN VX41
Notes:						
N/A						
N/A						
N/A						

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Opr No.	Planned WorkCenter Description	Operation Details	Comp. Qty.	Scrap Qty & Desc.	Date Comp.	Initials
	Quality Inspection & Review  Confirmation Reqd(Milestone) 	<p>Re-Inspect after re-work.</p> <p>Required Inspection Visual/OD Inspection Record Inspection Data in SAP ROS Record Laser Micrometer Information: TMI: <u>0700-01</u> Cal Due: <u>31MAY24</u> TMI: <u>n/a</u> Cal Due: <u>n/a</u> TMI: <u>n/a</u> Cal Due: <u>n/a</u> Material Consumed: Part #: <u>PA4001-01</u> Batch #: <u>S2434</u> Qty: <u>16</u> Part #: <u>100-153-01</u> Batch #: <u>S7011</u> Qty: <u>14</u> Part #: <u>n/a</u> Batch #: <u>n/a</u> Qty: <u>n/a</u> Part #: <u>n/a</u> Batch #: <u>n/a</u> Qty: <u>n/a</u> Part #: <u>n/a</u> Batch #: <u>n/a</u> Qty: <u>n/a</u> </p>	419	BW-11 EW-1 ACD-1 EH-1 #705-11 #905-11 #5US-11 DIS-LH HT III DL-11 MAR-HT HT HT HT TD-1 (50) EW-11	10Jan24	5104 PP4D ML46 MV18 DY29 KT27 PY46
950	QUALITY1 Quality Inspection & Review	<p>Quality Inspection & Review Borescope Inspection Record Inspection Data in SAP ROS Record Tip Gage Information: TMI: <u>n/a</u> Cal Due: <u>n/a</u> Record Caliper Information:</p>	n/a	n/a	n/a	n/a

Notes:

n/a

n/a

n/a

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Opr No.	Planned WorkCenter Description	Operation Details	Comp. Qty.	Scrap Qty & Desc.	Date Comp.	Initials
	 Quality Inspection & Review Confirmation Reqd(Milestone)	TMI: <u>n/a</u> Cal Due: <u>n/a</u> Record DIM02 Go/No-Go Gage Information: TMI: <u>0691</u> Cal Due: <u>30 Sep 25</u> TMI: <u>0692</u> Cal Due: <u>30 Sep 25</u> Record DIM02 Inspection Results N = 54: Pass: <u>54</u> Fail: <u>0</u>	390	DIS(SP)HHT DIS - HHT HHT HHT HHT HHT	<u>105</u> ^{cu 24} <u>29</u>	<u>7936</u> <u>MV78</u>
1000	 Quality Inspection & Review Quality Inspection & Review Confirmation Reqd(Milestone)	Quality Inspection & Review Leak Test Record Inspection Data in SAP ROS Record Leak Tester Information: TMI: <u>1056</u> Cal Due: <u>31 May 24</u> Record Length Gage Information: TMI: <u>08890</u> Cal Due: <u>30 Sep 24</u> Record Calibrated Ruler Information: TMI: <u>0629</u> Cal Due: <u>30 Sep 24</u>	355	UU - HHHHHHHH HHH HHH HHH HHH	<u>105</u> ^{cu 24} <u>35</u>	<u>7936</u>

Notes:

n/an/an/a

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① SV43 11 Jan 24

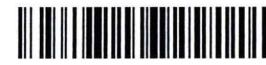


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1100	Confirmation Reqd(Milestone)	N/A	N/A	N/A	N/A	N/A
1150	PACKINT1 Packing assembly Package Confirmation Reqd(Milestone)	Package Package, Label, and Ship Finished Parts	306	0	12 Jun 24 AP10	

Notes:

N/A AP10 12 Jun 24



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Batch Number: 0000294403

By: AP10

Date: 12 Jan 24

Reviewed By:

RB70

Date:

12 JAN 24

Notes:

N/A AP10 12 Jan 24

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Extend to 2023 3208 11/1/23
Beta to 2023 3208 11/1/23

CONTROLLED COPY DEVIATION AUTHORIZATION NUMBER: 2484
*See added email extension to 24SEP23

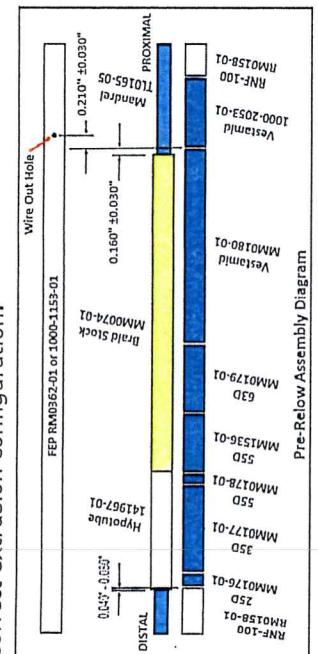
TS12
24AUG23 3208
Beta to 2023 3208 11/1/23

Requestor Name: Udhesh Kapadnis

Document Number Affected	Revision
3107610	L

Deviation From:

QIP3107610, Section 8.0 Inspection Requirements
(Supplemental Visual Inspection) OP 1050:
Current QIP3107610 does not state to inspect for the
correct extrusion configuration.

**Deviation To:**

This DA allows addition inspection for correct assembly of extrusion material MM0179-01 and MM1536-01 during performing QIP3107610, Section 8.0 Inspection Requirements (Supplemental Visual Inspection) OP 1050. See instructions attached to this DA.

Part Number Affected	End Date:	Revision
SA0155-01	25 Aug 2023	H

Justification: Recently it has been found that operators are incorrectly assembling MM0179-01 and MM1536-01. The event documents in NC-26390, and NC-26426. Only few of experienced inspectors can detect finished unit that contains incorrect extrusion configuration, and inexperienced inspectors may not which potential non-conformance unit sent to customer. Interim correction action has been implemented at OP 250, 300, 350 to detect unit built with out of oriented extrusions. This DA is adding another layer of inspection at final QC inspection to avoid incorrect assembly defects.

Start Date:	End Date:	Lot Number:
26 Jul 2023	N/A	

Risk Assessment:

Is there any potential risk(s) that may occur as a result of the proposed deviation including the following:
Control Plans Yes No FMEA's Yes No Validations Yes No Details (if any): N/A

If yes to any of the above, what controls are being put in place to mitigate the risk.

Corrective Action Required:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If no, explain:
If no, explain: No corrective action is required for this event as there are no changes to the current process, consumption of material, or how the product is produced. This added inspection guidelines are to avoid incorrect extrusion assembly defects.			

Training Required: Yes No If no, explain:

① UK55, 23JW 2023

2484
2468

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Group Training Record

Description/Objectives of Training:
DA- Inspection at final QC, Op#1050.

Procedure:

- 100% inspection at Op#1050 per the instructions below.
- Inspect 1 part at a time.
- Inspection is focused on the correct MM0179-01 and MM1536-01 assembly.
- Use the example MM0179-01 and ~~MM1536-02~~ fixture for inspection. (See image 1)
① **MM01536-01** type connection **(S)2** 10AUG-23



Image- 1

Step 1:

- Visually locate the MM0180-01 (Vestamid) transition to MM0179-01 on the completed part approximately 9.75" from the distal end using magnification light 2.25X minimum.
- Align the fixture MM0179-01 extrusion proximal end to the Vestamid transition on completed part.
(See image 2)



Image- 2

- Visually verify the MM0179-01 distal end of the fixture is approximately at the same location on the completed part. (See image 3)

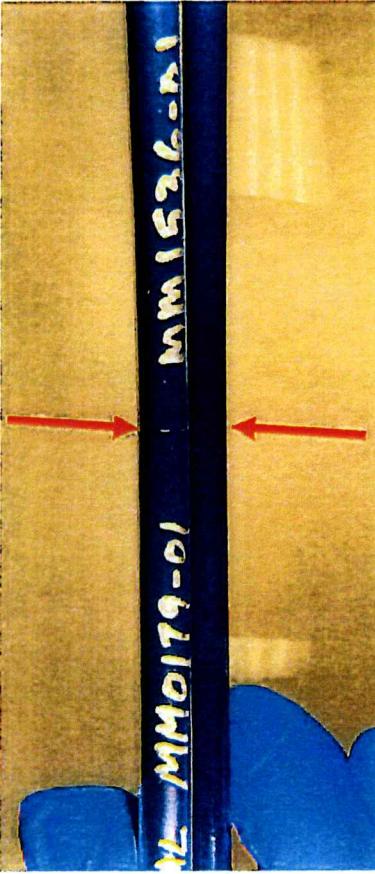


Image- 3

- Scrap the part if the transition is not approximately aligned. Save the scrapped parts for Engineer review.
- If the part transition is aligned, move to Step 2.

CONTROLLED COPY

Step 2:

- Visually verify the MM1536-01 distal end of the fixture is approximately at the same location on the completed part. (See image 4)

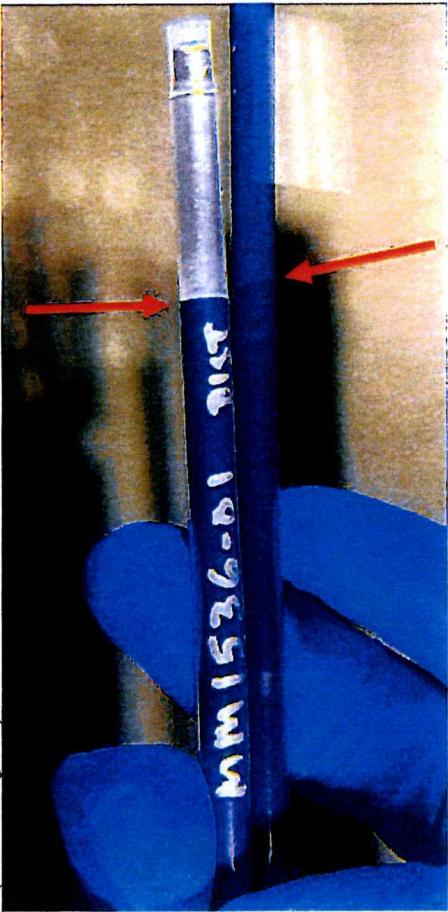


Image- 4

- Scrap the part if the transition is not approximately aligned. Save the scrapped parts for Engineer review.
- If the part transition is aligned, the part passes inspection.
- Use Image 5 as a guide for GOOD and BAD extrusion transition alignment.

1	MM0179-01	MM1536-01
GOOD PART		
2	MM1536-01	MM0179-01
MM0179-01 and MM1536-01 Wrong Order - BAD PART		
3	MM0179-01	MM0179-01
Two MM0179-01 - BAD PART		
4	MM1536-01	MM1536-01
Two MM1536-01 - BAD PART		

Image – 5

Title	Approval Name	Approval Signature	Date
Mgr. Quality Engineering	Hai Nguyen		25 Jul 2023
Mgr. Manufacturing Engineering	Jake Stanislowski		25 Jul 2023
Mgr. Operations	Matthew Benson		25 Jul 2023

FM0002.RevF

Deviation Authorization

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Entered to Hanwha T228 12/1/2023

DEVIATION AUTHORIZATION FORM

Requestor Name: Krishna Selvaraj			
Document Number Affected		Revision	
Doc #3005206 (MPI0238)		BP	
Deviation From:	Deviation To:		
Doc #3005206 (Flex Commander MPI0238): OPER850.11:	Doc #3005206 (Flex Commander MPI0238): OPER850.11: Using a laser micrometer, check the DIM06 outer diameter. Position the laser indicator as close to the distal edge as possible. Start the measurement, then slowly move the part through the laser micrometer until reaching the lower edge of the shoulder.		
Justification: TM10602 lasermic which is currently used in SA0155-01 Flex commander product at OPER850 for Dim 6 inspection has mechanical failure and confirmed as not usable. TM10700-01 lasermic is used at OPER900 for 100% inspection for Dim 1, Dim 6 and Dim 9. Since TM10700-01 is already qualified to inspect Dim 6 per ES0647: Laser micrometer equivalency test, there is no additional risk in using TM10700-01 for OPER850 Dim 6 inspection till TM10602 issue is resolved.			
Part Number Affected		Revision	
SA0155-01		H	
Start Date:	End Date:	Lot Number:	
16 Nov 23	15 DEC 23	N/A	
Risk Assessment: Is there any potential risk(s) that may occur as a result of the proposed deviation including the following: Control Plans <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No FMEA's <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Validations <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Details (if any): N/A If yes to any of the above, what controls are being put in place to mitigate the risk – N/A			
Corrective Action Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
If no, explain: This is a temporary change to use TM10700-01. DA will be removed once the lasermic TM10602 issues are resolved and accepted for usage.			
Training Required: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, explain: N/A			
Title	Approval Name	Approval Signature	Date
Engineering Manager	Jake Stanislowski		16 Nov 2023
Quality Manager	Jay Zabel		16 Nov 2023
Operations Manager	Matthew Benson		16 Nov 2023



Document No: 5105589
FM5104665 Rev: C
Document Type: Manufacturing Form
Title: SA0155-01 Reflow Log Sheet Form

PRODUCTION ORDER# 500000294403

OP 400



Document No: 5105589
FM5104665 Rev: C
Document Type: Manufacturing Form
Title: SA0155-01 Reflow Log Sheet Form

PRODUCTION ORDER# 500000294403

OP 400

Oven #	Cycle #	Time In	Temp. In (Actual)	Initials	Date	Time Out	Temp. Out (Actual)	Initials	Date	Qty
Tm10745	44	11:25am	430	AX05	09Jan24	11:37am	415	AX05	09Jan24	16
Tm10745	44	11:59am	430	AX05	09Jan24	12:11 PM	415	AX05	09Jan24	16
Tm10745	44	12:30PM	430	AX05	09Jan24	12:42 PM	415	AX05	09Jan24	16
Tm10745	44	1:35PM	430	AX05	09Jan24	1:47 PM	415	AX05	09Jan24	16
Tm10745	44	2:00PM	430	AX05	09Jan24	2:12 PM	415	AX05	09Jan24	16
Tm10745	44	3:03PM	430	RN27	09Jan24	3:15 PM	415	RN27	09Jan24	16
Tm10745	44	4:27pm	430	JY90	09Jan24	4:39pm	415	JY90	09Jan24	16
Tm10745	44	5:06pm	430	SX60	09Jan24	5:18pm	415	V078	09Jan24	16
Tm10745	44	6:24pm	430	SH85	09Jan24	6:36pm	415	SH85	09Jan24	16
Tm10745	44	6:54pm	428	SH85	09Jan24	7:08pm	415	SH85	09Jan24	16
Tm10745	44	7:25pm	429	SH85	09Jan24	7:37pm	415	SH85	09Jan24	16
Tm10745	44	7:53pm	249	SX60	09Jan24	7:05 PM 8:05 PM	415	SG88	09Jan24	16

① P146 10 Jan 24 signed for SX 60



Document No: 5105589
FM5104665 Rev: C
Document Type: Manufacturing Form
Title: SA0155-01 Reflow Log Sheet Form

PRODUCTION ORDER# 500600294403

OP 400

① V07809 Jan 24



Document No: 5105589
FM5104665 Rev: C
Document Type: Manufacturing Form
Title: SA0155-01 Reflow Log Sheet Form

PRODUCTION ORDER# 500000294403

OP 400

Oven #	Cycle #	Time In	Temp. In (Actual)	Initials	Date	Time Out	Temp. Out (Actual)	Initials	Date	Qty
Tm10942	44	11:12am	430	AX05	09Jan24	11:24am	415	AX05	09Jan24	16
Tm10942	44	11:40am	430	AX05	09Jan24	11:52am	415	AX05	09Jan24	16
Tm10942	44	12:15pm	430	AX05	09Jan24	12:27pm	415	AX05	09Jan24	16
Tm10942	44	1:45pm	430	AX05	09Jan24	1:57pm	415	AX05	09Jan24	16
Tm10942	44	2:30pm	430	AX05	09Jan24	2:42pm	415	AX05	09Jan24	16
Tm10942	44	3:10pm	430	NK62	09Jan24	3:22pm	415	NK62	09Jan24	10
Tm10942	44	4:09pm	430	SX60	09Jan24	4:21pm	415	SX60	09Jan24	16
Tm10942	44	4:45pm	430	JY90	09Jan24	4:57pm	415	JY90	09Jan24	16
Tm10942	44	5:30pm	430	V078	09Jan24	5:42pm	415	SA07	09Jan24	16
Tm10942	44	6:37pm	430	SG88	09Jan24	6:49pm	415	SG88	09Jan24	16
Tm10942	44	7:12pm	430	SH85	09Jan24	7:24pm	415	SH85	09Jan24	16
Tm10942	44	7:44pm	430	SX60	09Jan24	7:56pm	415	SG88	09Jan24	16



Document No: 5106073
Rev: E
Document Type: Manufacturing Form
Title: SA0155-01 Visual Rework Form

PO #: 500006294403

OP #: 500 Shift #: 1st

Total Parts Reworked:		64	
Router Code	Defect Failure Mode	Reworkable Defects (Tally)	Total Defects
AB	Air Bubbles	N/A	N/A
EH	Exposed Hypotube		12
EW	Exposed Wire		① 45 - 35
MP	Micropores	N/A	N/A
SCR	Scratch		
SKV	Skive Marks		
VD	Voids		5 ① 5
N/A	N/A	N/A	N/A
Inspected By (Sign and Date):		LLG1, CB81, VC09	08 Jan 24

Note: Indicate tally marks in groups of 5. Scrap is to be recorded on the SAP router; this form is for reworked parts only.

Data Uploaded for Engineering Review (Check):

① LLG1 10 Jan 24



Document No: 5106073
Rev: E
Document Type: Manufacturing Form
Title: SA0155-01 Visual Rework Form

PO #: 500000294403 OP #: 500 Shift #: 2

Total Parts Reworked:		41	
Router Code	Defect Failure Mode	Reworkable Defects (Tally)	Total Defects
AB	Air Bubbles	N/A	N/A
EH	Exposed Hypotube		5
EW	Exposed Wire		31
MP	Micropores	N/A	N/A
SCR	Scratch		2
SKV	Skive Marks	N/A	N/A
VD	Voids		3
N/A	N/A	N/A	N/A
Inspected By (Sign and Date):		MV78 HT72 09 Jan 24	

Note: Indicate tally marks in groups of 5. Scrap is to be recorded on the SAP router; this form is for reworked parts only.

Data Uploaded for Engineering Review (Check):



Document No: 5106073
Rev: E
Document Type: Manufacturing Form
Title: SA0155-01 Visual Rework Form

PO #: 500000294403

OP #: 500 Shift #: 2

Total Parts Reworked:		<u>26</u>	
Router Code	Defect Failure Mode	Reworkable Defects (Tally)	Total Defects
AB	Air Bubbles	<u>n/a</u>	<u>0</u>
EH	Exposed Hypotube	<u>///</u>	<u>3</u>
EW	Exposed Wire	<u> </u>	<u>25</u>
MP	Micropores	<u>n/a</u>	<u>0</u>
SCR	Scratch	<u>n/a</u>	<u>0</u>
SKV	Skive Marks	<u>n/a</u>	<u>0</u>
VD	Voids	<u>///</u>	<u>3</u>
<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>0</u>
Inspected By (Sign and Date):		<u>Craig</u> 09 Jan 24	

Note: Indicate tally marks in groups of 5. Scrap is to be recorded on the SAP router; this form is for reworked parts only.

Data Uploaded for Engineering Review (Check):



Document No: 5106073
Rev: E
Document Type: Manufacturing Form
Title: SA0155-01 Visual Rework Form

PO #: 500000294403 OP #: 500 Shift #: 2nd.

Total Parts Reworked:		13	
Router Code	Defect Failure Mode	Reworkable Defects (Tally)	Total Defects
AB	Air Bubbles	N/A	N/A
EH	Exposed Hypotube		1
EW	Exposed Wire		5
MP	Micropores	N/A	N/A
SCR	Scratch	N/A	N/A
SKV	Skive Marks	N/A	N/A
VD	Voids		2
N/A	N/A	N/A	N/A

Inspected By (Sign and Date):

MM02

09 Jan 23 09 Jan 24

Note: Indicate tally marks in groups of 5. Scrap is to be recorded on the SAP router; this form is for reworked parts only.

Data Uploaded for Engineering Review (Check):

(OPY 46 10 Jan 24

signed for mm02

PO #: 500000294403OP #: 750 Shift #: 2

Document No: 6102646

Rev: A

Document Type: Manufacturing Form

Title: SA0155-01 Tipping Rework Form

Total Parts Reworked:		20	
Router Code	Defect Failure Mode	Reworkable Defects (Tally)	Total Defects
DIM07 OS / WO	DIM07 Oversized (Window Open)		5
DIM07 US / WC	DIM07 Undersized (Window Closed)		5
EH	Exposed Hypotube		2
N/A	N/A	N/A	N/A
Inspected By (Sign and Date):		MM02	09Jan24

Note: Indicate tally marks in groups of 5. Scrap is to be recorded on the SAP router; this form is for reworked parts only. DIM01 OS, DIM09 OS, Foreign Material, and Cracks are not reworkable per MPI0238.

Data Uploaded for Engineering Review (Check):



Document No: 6102646

Rev: A

Document Type: Manufacturing Form

Title: SA0155-01 Tipping Rework Form

PO #: 500000294403

OP #: 750 Shift #: 2nd

Total Parts Reworked:		65	
Router Code	Defect Failure Mode	Reworkable Defects (Tally)	Total Defects
DIM07 OS / WO	DIM07 Oversized (Window Open)		20
DIM07 US / WC	DIM07 Undersized (Window Closed)		27
EH	Exposed Hypotube		18
N/A	N/A	N/A	N/A
Inspected By (Sign and Date):		PP40 09 Jan 24	

Note: Indicate tally marks in groups of 5. Scrap is to be recorded on the SAP router; this form is for reworked parts only. DIM01 OS, DIM09 OS, Foreign Material, and Cracks are not reworkable per MPI0238.

Data Uploaded for Engineering Review (Check):

PRODUCTION ORDER# 500000294403

OP 800

Oven #	Cycle #	Time In	Temp. In (Actual)	Initials	Date	Time Out	Temp. Out (Actual)	Initials	Date	Qty
TM10409	N/A	2:20pm	190°F	OS21	09Jan24	3:30pm	190°F	OS21	09Jan24	11
TM12036	N/A	2:55pm	190°F	Hv36	09Jan24	4:05pm	190°F	SG88	09Jan24	24
TM10409	N/A	4:35pm	190°F	SG88	09JAN24	5:45 PM	190°F	SA07	09Jan24	33
TM12036	N/A	5:18pm	190°F	SG88	09JAN24	6:28pm	190°F	AT39	09Jan24	40
TM10409	N/A	6:50pm	190°F	AT39	09Jan24	8:00pm	190°F	AT39	09Jan24	34
TM12036	N/A	7:25 PM	190°F	AT39	09Jan24	8:35pm	190°F	AT39	09Jan24	39
TM10409	N/A	8:01pm	190°F	AT39	09Jan24	9:11 pm	190°F	AT39	09Jan24	①4860
TM10409	N/A	9:20pm	190°F	AT39	09Jan24	10:30pm	190°F	AT39	09Jan24	32
TM12036	N/A	10:05pm	190°F	AT39	①+09Jan24	11:15pm	190°F	AT39	09Jan24	42
TM10409	N/A	10:50pm	190°F	AT39	09Jan24	12:00AM	190°F	AT39	10Jan24	44
TM10409	N/A	12:10AM	190°F	AT39	①+10Jan24	1:20AM	190°F	AT39	10Jan24	44
TM12036	N/A	12:53AM	190°F	AT39	10Jan24	2:07AM	190°F	AT39	10Jan24	42
TM10409	N/A	1:21AM	190°F	AT39	10Jan24	2:31AM	190°F	AT39	10Jan24	22

①AT39 09Jan24



PO #: 500000294403

OP #: 900 Shift #: 2nd

Document No: 6102619
Rev: B
Document Type: Manufacturing Form
Title: SA0155-01 Dimensional/Visual Rework Form

Total Parts Reworked:		74	
Router Code	Defect Failure Mode	Reworkable Defects (Tally)	Total Defects
AB	Air Bubbles	N/A	0
EH	Exposed Hypotube		1
EW	Exposed Wire		5
MP	Micropores	N/A	0
SCR	Scratch		68
SKV	Skive Marks		5
VD	Voids		12
DIM01 US	DIM01 OD Undersized	N/A	0
DIM06 US	DIM06 OD Undersized		3
DIM06 OS	DIM06 OD Oversized	N/A	0
DIM09 US	DIM09 OD Undersized	N/A	0
Inspected By (Sign and Date):		Meille	09 Jan 24

Note: Indicate tally marks in groups of 5. Scrap is to be recorded on the SAP router; this form is for reworked parts only. DIM01 OS, DIM09 OS, Foreign Material, and Cracks are not reworkable per MPI0238.

Data Uploaded for Engineering Review (Check):

- CONFIDENTIAL -

Page 1 of 1

Status CURRENT Effective 5/8/2023



PO #: 500000294403 OP #: 900 Shift #: 2nd

Document No: 6102619
Rev: B
Document Type: Manufacturing Form
Title: SA0155-01 Dimensional/Visual Rework Form

Total Parts Reworked:		74	
Router Code	Defect Failure Mode	Reworkable Defects (Tally)	Total Defects
AB	Air Bubbles	N/A	0
EH	Exposed Hypotube		2
EW	Exposed Wire		12
MP	Micropores	N/A	0
SCR	Scratch		73
SKV	Skive Marks		1
VD	Voids		6
DIM01 US	DIM01 OD Undersized	N/A	0
DIM06 US	DIM06 OD Undersized		4
DIM06 OS	DIM06 OD Oversized		1
DIM09 US	DIM09 OD Undersized	N/A	0
Inspected By (Sign and Date):		<i>See HZ</i>	09 Jan 24 pp40

Note: Indicate tally marks in groups of 5. Scrap is to be recorded on the SAP router; this form is for reworked parts only. DIM01 OS, DIM09 OS, Foreign Material, and Cracks are not reworkable per MPI0238.

Data Uploaded for Engineering Review (Check):



PO #: 500000294403

OP #: 900 **Shift #:** 1st

Document No: 6102619
Rev: B
Document Type: Manufacturing Form
Title: SA0155-01 Dimensional/Visual Rework Form

Note: Indicate tally marks in groups of 5. Scrap is to be recorded on the SAP router; this form is for reworked parts only. DIM01 OS, DIM09 OS, Foreign Material, and Cracks are not reworkable per MPI0238.

Data Uploaded for Engineering Review (Check):

Maximum Force Reached During Tensile Test (10 samples accepted from final inspection for each lot shall be selected and tensile tested)																
Sample # →	1	2	3	4	5	6	7	8	9	10	Avg	St Dev	K	Calculated Lower bound	Min Spec	Pass / Fail
Seg A	25.76	26.77	25.57	25.41	25.88	25.83	29.3	28.4	25.52	25.77	26.421	1.3493904	4.378	20.5133688	8.542	PASS
Seg B	59.29	60.54	68.18	59.27	56.64	57.96	62.42	68.62	66.38	62.32	62.162	4.2582907	3.981	45.2097446	8.542	PASS
Seg C	77.89	78.34	76.87	76.2	75.15	77.05	74.97	80.11	76.13	77.99	77.07	1.5688141	2.911	72.5031821	8.542	PASS

All Force Values are recorded in Pound-Force and Distance is in Inches
Specification for lower bound is 38N was converted to 8.542Lbf
First Peak Force was collected during test and has been included in the raw data file (this information will not be captured / summarized in the DA due to it is not required to used for DA acceptance.

EDW Commander Flex - Bend and Tensile Strength Testing

LOT #: 500000294403

Date: 11JAN24

Inspector Name: Andrew Wipf

Equipment ID: TMIO311B

Cal Due Date: 27 OCT 24



11Jan24