



Subject: Supplier Process Control Records

**PURPOSE:**

To define the necessary records to ensure the Process Controls are completed properly.

**SCOPE:**

Supplier needs to create Process Control Records on how to confirm Process and Part Quality, Production Performance Analysis, and Preventive Maintenance.

**CONTENT:**

**1. Process Confirmation.**

For automatic inspection processes with online gage, mastering needs to be performed every production shift with set masters, NG samples to ensure machine and gages work properly. The Mastering sheet must be completed / signed by operator and reviewed / signed by next level of supervision. The following is one example of Mastering sheet:

**ASSEMBLY #1**

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EXECUTION: 4 TIMES PER SHIFT

JUDGMENT: INDICATOR BOX SHOULD BEEP AND LIGHT NG.      BEEP AND NG LIGHT = 0;      OK LIST = X

	BLUE							GREEN										
	Shaft Cap		Ring Sensor		Man Jig		INSPECTOR	TIME	CHECK	Shaft Cap		Ring Sensor		Man Jig		INSPECTOR	TIME	CHECK
	10SE	10SRE	10SE	10SRE	Sample #1	Sample #2				10SE	10SRE	10SE	10SRE	Sample #1	Sample #2			
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## 2. Part Quality Confirmation.

Part quality check needs to be performed according to Control Plan frequency, the results need to be recorded on Quality check sheet with judgment and reaction plan. The Quality check sheet must be completed / signed by operator and reviewed / signed by next level of supervision. The following is one example of Quality check sheet:

Michigan Automotive Compressor, Inc. CHECK SHEET		SHIFT	MONTH	YEAR										
PROCESS <b>Stator-010</b> <b>Projection Welding</b>	ITEM <b>Position of Square Hole</b>	PART NO. <b>Stator 3 Common</b>		<table border="0"> <tr> <td><b>Gage</b></td> <td><b>Sampling</b></td> </tr> <tr> <td>GST3-3010-10-A-2/2-1</td> <td>8 per 2 Hrs</td> </tr> <tr> <td>Master</td> <td>8 per 2 Hrs</td> </tr> <tr> <td>GST3-3010-10-A-1/2-1</td> <td></td> </tr> <tr> <td>Vision System</td> <td>8 per 2 Hrs</td> </tr> </table>	<b>Gage</b>	<b>Sampling</b>	GST3-3010-10-A-2/2-1	8 per 2 Hrs	Master	8 per 2 Hrs	GST3-3010-10-A-1/2-1		Vision System	8 per 2 Hrs
<b>Gage</b>	<b>Sampling</b>													
GST3-3010-10-A-2/2-1	8 per 2 Hrs													
Master	8 per 2 Hrs													
GST3-3010-10-A-1/2-1														
Vision System	8 per 2 Hrs													
MACHINE NO.	SPECIFICATIONS <b>90.0 +/- 0.5 (angle-degree)</b>	PART NAME <b>Stator 3 Common</b>												
1 Grid Line = 0.100														
U.S.L. <b>90.5</b>														
90.4														
90.3														
90.2														
90.1														
<b>90</b>														
89.9														
89.8														
89.7														
89.6														
L.S.L. <b>89.5</b>														
DATE														
RECORD DATA HERE														
ASSOCIATE														
ATL or ABOVE														
Date	Process Adjustment	Verification Data	Associate Initials	Part Disposition	ATL or Above Initials									
				OK Hold Deviate Scrap										
				OK Hold Deviate Scrap										
				OK Hold Deviate Scrap										
				OK Hold Deviate Scrap										
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				OK Hold Deviate Scrap										
				OK Hold Deviate Scrap										



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### 3. Production Performance Analysis.

This document is to record the daily activities of production, including Production Quantity, Change over events, Short Period Stops, any Machine Down Times, Tool change record and Defect Quantity by Type, etc. It must be tracked by hour of each day of production. And it must be completed / signed by operator and reviewed / signed by next level of supervision. The following is one example of Performance Analysis Sheet:

Daily Performance Analysis Sheet

LINE:	Production Qty		Stop Time	Part Type	Maintenance / Machine Stop / Quality Check / Trouble Contents And Action	Shift: Blue / Green			Date:		
Work Time	Target	Actual				MC#	T/C time (min)	SPS (min)	Down Time (min)	Change Over time (min)	Others
Before Shift											
6:00 ~ 7:00	232										
7:00 ~ 8:00	232										
8:00 ~ 9:00	232										
9:00 ~ 10:00	232										
10:00 ~ 11:00	232										
11:00 ~ 12:30	232					In Process Defect Tracking					
						MC#	Defect Type1	Defect Type2	Defect Type3	Defect Type4	
12:30 ~ 1:30	232										
1:30 ~ 2:30	232										
2:30 ~ 3:30	232										
3:30 ~ 4:30	232										
4:30 ~ 5:30	232										

AT/L Initials 3 x a shift      T/L Initials 2 x a shift

### 4. Preventive Maintenance.

Supplier needs to create Preventive Maintenance schedule for each process, including equipments, jigs and fixtures, conveyors etc. Suppliers should have recording method for PM's. PM records need to be completed / signed by operator and reviewed / signed by next level of supervision.