

PROCESS ABILITY TEST



GADC _ Wanne _ BLV100C & BLG 8150 _ withness with Prima Sakti,PT

Unit type : GADC Wanne _ BLV100C & BLG 8150 Material
 Process Overview : Fan Nozzle drawing 1st - Fan Nozzle Drawing 2nd [at Prima sakti,PT Malang]
 Work Center : Prima Sakti , PT [Sub Contract]

Process & Machine review

Date : 17 JAN 2021
 Work Center : Prima Sakti , PT [Sub Contract]

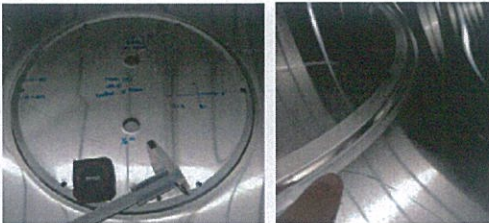
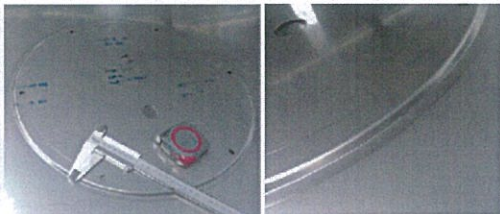
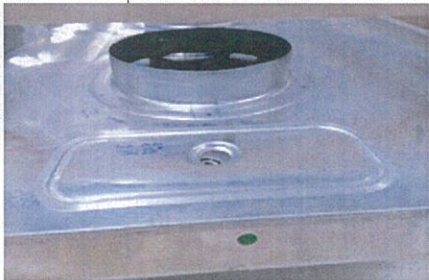
No	Criteria	Necessary check	Result	Judgment	Final Judgment	Remark
1	Process time / CT	Yes		Yes		all activity refer to Sub Cont Process.
2	Easy to Install	Yes		Yes		
3	Need Additional Process	Yes		Yes		
4	Need Additional Tools/Equipment	Yes		Yes		

INFO :

Current condition :

- 1 Prehole
 - 2 Emboss height [3 mm required]
 - 3 Tool orbit deviation [Roller Fold Trumatic]
- Issue :
- 1 Reamer / cleaning activity on fan nozzle process
 - 2 Kind of using Trumatic tool [tool selection]
 - 3 Re embossing during punching process at Prima Sakti ,PT

Wanne GADC Product [BLG 8150 & BLV100C - without prehole]

Task	Process / FOTO	Remarks																
1.A Wanne BLA 8150 - after Trumatic [1] Without prehole , only 2 pcs pin guide [2] Tool Roller fold KETEC [2] LDP: 0 Feed 25 m/min [3] improve tool orbit with OD - ID [465-457] <table><tr><th>GADC Wanne</th><th>PRIMA SAKTI</th><th colspan="2">TRUMATIC</th></tr><tr><th></th><th>DIE</th><th>Existing</th><th>improve</th></tr><tr><td>OD Tool Orbit [mm]</td><td>465</td><td>473</td><td>455</td></tr><tr><td>ID Tool Orbit [mm]</td><td>458</td><td>465</td><td>457</td></tr></table>	GADC Wanne	PRIMA SAKTI	TRUMATIC			DIE	Existing	improve	OD Tool Orbit [mm]	465	473	455	ID Tool Orbit [mm]	458	465	457		Tool Roller fold KETEC [2] ✓ 
GADC Wanne	PRIMA SAKTI	TRUMATIC																
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2.A GADC Wanne Product _ BLA 8150 _ 707045097 SO270.01G_708 Wanne GADC 035/2 QM check : OK	 Visual Check : * Nozzle no crack * not found deformation	Wanne Check BLG 8150 : * ID Fan nozzle : +/- 350 mm * H fan nozzle : +/- 70 mm + Emboss h = +/- 2,9 mm  PASSED / RELEASED BY QM																

[Handwritten signature]

2.B GADC Wanne Product _ BLV100C

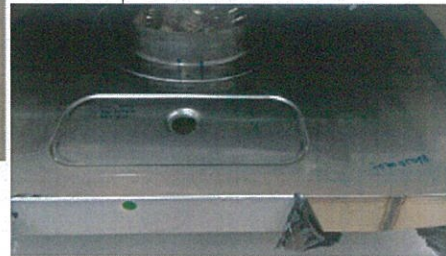
707045098 SO270.01V_708 Wanne GADC 035/2

QM check : OK



Visual Check :
* Nozzle no crack
* not found deformation

Wanne Check BLV100 C :
* ID Fan nozzle : +/- 350 mm
* H fan nozzle : +/- 68 mm
* Emboss h = +/- 2,8 mm



PASSED / RELEASED BY QM

Puching process by PRIMA SAKTI , PT [BLA 8150 & BLV100 C]

Task	Process / FOTO	Remarks
1. Tool & Machine Preparation by Prima Sakti,PT 1 Machine : Minchang SHINHARA Cap 200 Ton Set pressure : 150 Bar [for VA] Set pressure : 130 Bar [for Alum] 2 DIE : GADC DIE		
2. Step Process at Prima Sakti,PT Step 1 Punch [depth drawing 30 %] [embos process ==> cutting process] Step 2-3 Cleaning burr Step 4-5 Material + tool lubricated Step 6 Punch [drawing to 100%] [nozzle drawn untill complete H = 71 mm] Step 7 Visual check	Step Process at Prima Sakti,PT 	STEP 2 - 3 are DELETED caused Without Pre Hole implemented

REVIEW double drawing punch

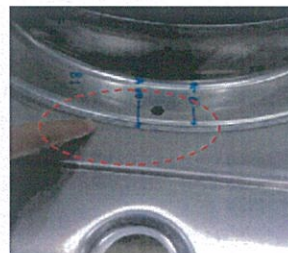
Sample A1 + B1 ==> Existing Tool Orbit [found re embossing NOT OK]

Sample A2 + B2 ==> Improve Tool Orbit [Not found re embossing , Visual more Good - OK]

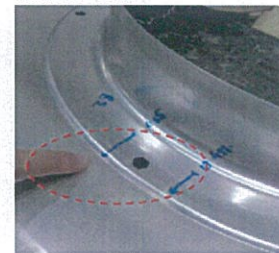
GADC Wanne	PRIMA SAKTI	TRUMATIC	
	DIE	Existing	Improve
OD Tool Orbit [mm]	465	473	465
ID Tool Orbit [mm]	458	465	457

IMPROVE - GOOD

EXISTING - Not Good



IMPROVE - Good



Conclusion for Wanne GADC with material BLA 8150 & BLV 100 C :

Wanne GADC [BLG 8150 & BLV 100C]	Develop Stage 1	Develop Stage 2		Remarks
	BLV100 C	BLA 8150	BLV 100 C	
	17 Dec 2021	17-Jan-2022	17-Jan-2022	
Pre Hole by Trumatic	YES	NOT	NOT	
Tool Trumatic Orbit OD - ID [473-465] Existing	YES	-	-	* reemboosing case
Tool Trumatic Orbit OD - ID [465-457] Improve	-	YES	YES	
Embose h : 3 mm Roller Fold [2] - KETEC	YES	YES	YES	Roller Fold [2] - KETEC LDP 0 Feed 25 m/min
Reamer / cleaning activity at Prima Sakti , PT	YES	NOT	NOT	* More Lead time [prehole process] , reamer / deaning effort
QM inspection [21 Jan 2022]	OK	OK	OK	potential cracking during punch etc.
Summary Product Wanne GADC	OK	OK	OK	
IE Recommendation	NOT	YES	YES	

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