

Lampiran 1. *Supplier APQP: Time Line* (Sumber: Magna Electronic)

Supplier APQP: Time Line

No	OUTPUT	September '11				October '11				November '11				December '11				January '12				February '12			
		W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
1	1.1 Design FMEA																								
1	1.2 Preliminary Capacity Study reviewed																								
1	1.3 Manufacturing Feasibility reviewed																								
1	1.4 Component Design Review																								
1	Product Characteristics Matrix obtained																								
1	1.5 Key Supplier Metrics obtained																								
1	1.6 Supplier Project timing plan																								
1	1.7 Open Issues Action Plan created																								
1	1.8 Measurement/ Testing equipment																								
1	2.1 Preliminary Process Flow Chart Review																								
1	2.2 Preliminary PFMEA Review																								
1	2.3 Preliminary Control Plan Review																								
1	2.4 Preliminary Control Plan Review																								
1	2.5 Tooling																								
1	2.6 Capital equipment																								
1	2.7 Training																								
1	2.8 Process instructions																								
1	2.9 Packaging																								
1	2.10 Key Supplier Metrics reviewed																								
1	3.1 ELV/MS																								
1	3.2 Safe Launch Plan (SPL) finalized																								
1	3.3 Sub-Supplier PPAP Approval																								
1	3.4 Supplier Ramp Plan																								
1	3.5 Plant Readiness Review																								
1	3.6 Launch Readiness Audit																								
1	3.7 Appearance Approval Process (when)																								
1	3.8 Key Supplier Metrics reviewed																								
1	4.1 PPAP																								
1	4.2 Launch Readiness Audit																								
1	4.3 Run at Rate																								
1	4.4 Key Supplier Metrics reviewed																								
1	4.5 OK to Launch Sign-Off																								

Planned start

Planned completion

Actual start

Actual end

Lampiran 3. *Supplier APQP: Progress Report – Status Overview*

(Sumber: Magna Electronic)

Supplier APQP: Progress Report - Status Overview

Supplier Name: <input type="text"/>	Supplier Location: <input type="text"/>	Supplier Code: <input type="text"/>
Part Number: <input type="text"/>	Part Name: <input type="text"/>	Revision Level: <input type="text"/>
Component Priority Level: <input type="checkbox"/>	Lead Customer/Program: <input type="text"/>	Report Date: <input type="text"/>

PROGRAM MILESTONES

Event	Date			Event	Date		
	Needed	Committed	Completed		Needed	Committed	Completed
Design Freeze							
First OK-Tool							
First OK-Process							
MEPV Build							
PPAP submission							
Start of Production							

PHASE/ELEMENT STATUS OVERVIEW


APQP Phase	Element	Date			Percent Complete					Issues / Recovery Plan / Actions	
		Needed	Committed	Complete	1	2	3	4	5		
1	1.1 Design FMEA										
	1.2 Preliminary Capacity Study reviewed										
	1.3 Manufacturing Feasibility reviewed										
	1.4 Component Design Review										
	1.5 Key Supplier Metrics initiated										
	1.6 Supplier Project timing plan										
	1.7 Open Issues Action Plan created										
2	2.1 Measurement/ Testing equipment										
	2.2 Tooling										
	2.3 Capital equipment										
	2.4 Initiate PCM (Safe Launch Plan)										
	2.5 Sub-Supplier PPAP's										
	2.6 Process Flow Diagram										
	2.7 PFMEA										
	2.8 Control Plan										
	2.9 Training										
	2.10 Key Supplier Metrics reviewed										
3	3.1 ELV/MSD										
	3.2 Safe Launch Plan finalized										
	3.3 Supplier Ramp Plan										
	3.4 Plant Readiness Review										
	3.5 Launch Readiness Audit										
	3.6 Appearance Approval Process (when applicable)										
	3.7 Key Supplier Metrics reviewed										
4	4.1 PPAP										
	4.2 Launch Readiness Audit										
	4.3 Run at Rate										
	4.4 Key Supplier Metrics reviewed										
	4.5 OK to Launch Sign-Off										

Lampiran 4. PT. DEF APQP: Contacts - APQP Team (Sumber: Magna Electronic)

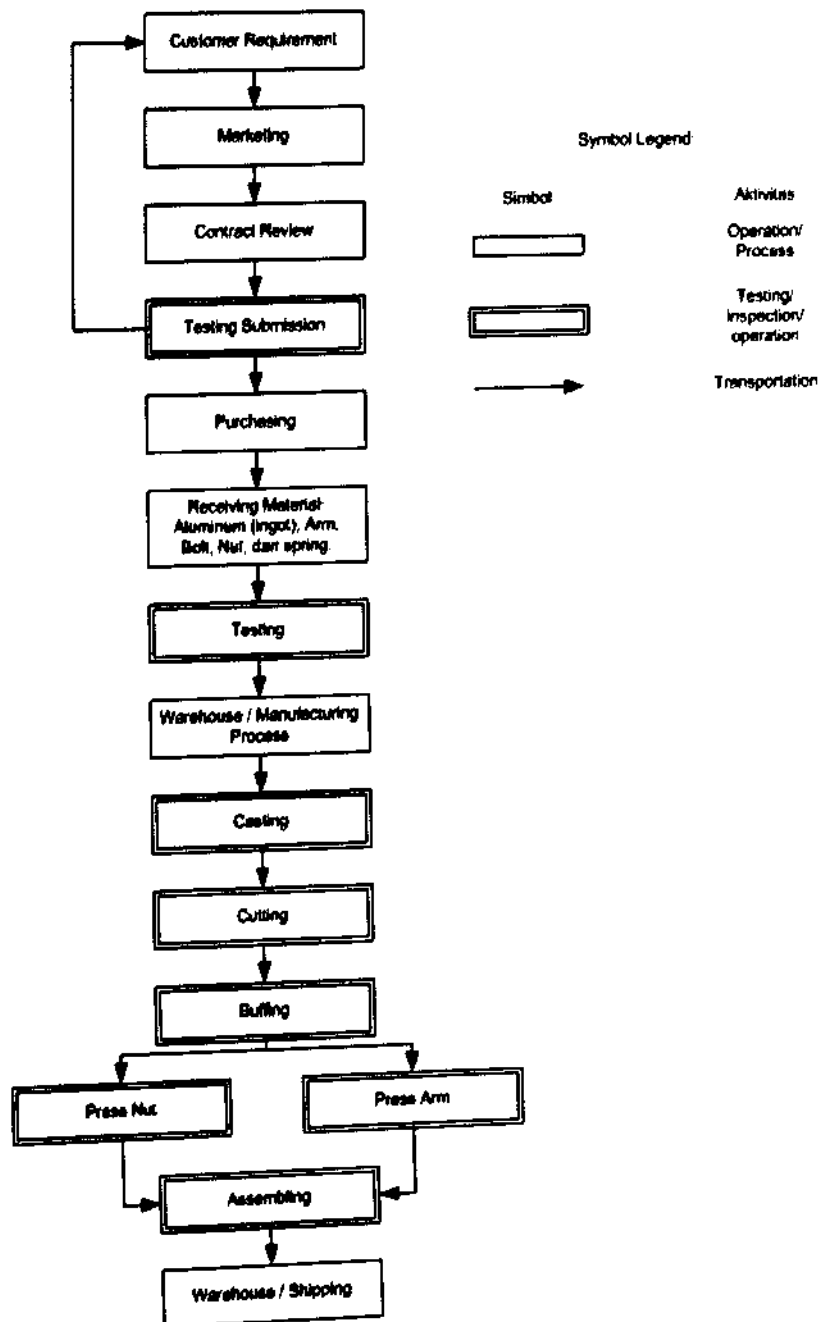
PT. DEF APQP: Contacts- APQP TEAM		Part Number	Report Date / Revision
Contact Information			
DEF Purchasing	Name		
	Dept.		
	Tel.		
	Fax.		
	E-mail		
DEF Warehouse	Address/ Location		
	Name		
	Dept.		
	Tel.		
	Fax.		
DEF Production	E-mail		
	Address/ Location		
	Name		
	Dept.		
	Tel.		
DEF QC/QA	Fax.		
	E-mail		
	Address/ Location		
	Name		
	Dept.		
DEF Factory Manager	Tel.		
	Fax.		
	E-mail		
	Address/ Location		
	Name		
Contact Information			
	Name		
	Dept.		
	Tel.		
	Fax.		
	E-mail		
	Address/ Location		
	Name		
	Dept.		
	Tel.		
	Fax.		
	E-mail		
	Address/ Location		
	Name		
	Dept.		
	Tel.		
	Fax.		
	E-mail		
	Address/ Location		
	Name		
	Dept.		
	Tel.		
	Fax.		
	E-mail		
	Address/ Location		
	Name		

Lampiran 5. PT. DEF Process Flow Diagram

PT. DEF
PROCESS CONTROL PLAN

Prototype <input checked="" type="checkbox"/> Pre-launch <input checked="" type="checkbox"/> Production <input checked="" type="checkbox"/>	PIC Quality Assurance Mgr.	Revision No 00	Page: 1 of 6
Process Name: Process Flow Diagram	Core Team: Marketing, PPIC, QA, Production	Customer Engineering approval (if Req'd) Refer to Contract	
Product Name: Rigid Specar	Doc. Number: QMR-PCF-01	Customer Quality Approval (if Req'd) Refer to Contract	
Product Reference: BWT2-2x400	Plant Approval Date: November 21, 2011	Signature: 	

PT. DEF PROCESS FLOW DIAGRAM



Lampiran 6. Process Control Plan Receiving Material and Component

PT. DEF
PROCESS CONTROL PLAN

No.	Process Name	Process Capability/Machine			Document	Flair	Standard	Evaluation technique	Size	Freq	Sample		Responsibility	Resolution Plan					
		Prototype	Pre-launch	Production							Control method	Control method							
POC: Quality Assurance Manager Rev. 01 Customer/Engineering approval (if Req'd): Refer to Planning of Product Realization Procedures Customer Quality Approval (if Req'd): Refer to Planning of Product Realization Procedures Signature: <i>[Signature]</i>																			
Plant Approval Date: November 22, 2011																			
1	Receiving Material				- WI (OC-TB-01)	Surface	As per specification, if applicable check chemical component standard	- Visual inspection	3	Each lot	Certificate of Conformance	QC Incoming	Hold and Deposition Claim to supplier (OC-TB-01)						
							Following List - Delivery Slip	- Visual inspection - Weight Holder	100%	Each lot	Warehouse / Record	Warehouse	Hold and Deposition Claim to supplier (OC-TB-01)						
							As per specification	- Visual inspection	100%	Every 6 months	FIFO, Stock Card, dan Storage inspection sheet	Warehouse	Stock opname Audit						
							Drawing	- Digital readout	Min 5 pcs	Each lot	QC-SO-01 / Record	QC Incoming	Increased amount of testing (OC-S-01) Hold and Deposition (OC-TB-01)						
							Drawing	- Torque meter	Min 5 pcs	Each lot	QC-SO-01 / Record	QC Incoming	Increased amount of testing (OC-S-01) Hold and Deposition (OC-TB-01)						
							As per specification	- Visual inspection	100%	Every 6 months	FIFO, Stock Card, dan Storage inspection sheet	Warehouse	Stock opname Audit						
							As per packaging list	- Visual inspection - Weight Holder	100%	Each lot	Surat jalan	Warehouse	Hold and Deposition Claim to supplier (OC-TB-01)						
							As per specification	- Visual inspection	100%	Every 6 months	FIFO, Stock Card, dan Storage inspection sheet	Warehouse	Hold and Deposition Claim to supplier (OC-TB-01)						
							2	Receiving Component				- WI (OC-TB-01)	Qty. Correct Document	As per specification	100%	Each lot		Warehouse	Hold and Deposition Claim to supplier (OC-TB-01)

Lampiran 7. Process Control Plan Keeper ENR22

PT. DEF
PROCESS CONTROL PLAN

Prototype		<input checked="" type="checkbox"/> Pre-launch	<input checked="" type="checkbox"/> Production	<input checked="" type="checkbox"/>	QC: Quality Assurance Manager	Revision No.: 09	Page: 3 of 6				
Process Name: Manufacture of Keeper ENR22		Core Team: Production and QC			Customer Engineering approval (if Req'd): Refer to Planning of Product Realization Procedure						
Product Name: Right Spacer		Doc. Number: QMR-PCP-03			Customer Quality Approval (if Req'd): Refer to Planning of Product Realization Procedure						
Product Reference: ENR22-2x600		Plant Approval Date: November 22, 2011			Signature: <i>[Signature]</i>						
		Control Point			Sample						
No.	Process Name	Facilities/Machine	Document	Point	Standard	Evaluation technique	Size	Freq.	Control method	Responsibility	Reaction Plan
1	Casting	Gravity casting	<ul style="list-style-type: none"> WI (FN-FO-01) WI (FN-BM-01) WI (FN-GC-01) WI (QC-TM-01) 	<ul style="list-style-type: none"> Surface Consistency of temperature Conformance to mechanical specification 	<ul style="list-style-type: none"> Smoothness Legibility 680°C - 780°C ≥ 50 Nm 	<ul style="list-style-type: none"> Visual inspection Visual inspection Torque meter 	<ul style="list-style-type: none"> 100% Min. 5 pcs 	<ul style="list-style-type: none"> Each lot Each lot 	<ul style="list-style-type: none"> Operator / Production Record Operator QC-SQ-01 / Inspection Record 	<ul style="list-style-type: none"> Operator Operator QC Inspector 	<ul style="list-style-type: none"> Reject and Reworking Controlling every one hour Increased amount of testing (QC-IP-01)
2	Cutting	Band Saw machine	<ul style="list-style-type: none"> WI (FN-ES-01) 	<ul style="list-style-type: none"> Consistency of cutting 	<ul style="list-style-type: none"> Body keeper is not fractured 	<ul style="list-style-type: none"> Visual inspection 	<ul style="list-style-type: none"> 100% 	<ul style="list-style-type: none"> Each lot 	<ul style="list-style-type: none"> Operator / Production Record 	<ul style="list-style-type: none"> Operator 	<ul style="list-style-type: none"> Reject and Scrap (QC-IP-01)
3	Buffing	Grinding machine	<ul style="list-style-type: none"> WI (FN-SF-01) WI (QC-JS-01) 	<ul style="list-style-type: none"> Surface Conformance to dimension 	<ul style="list-style-type: none"> Smoothness Drawing 	<ul style="list-style-type: none"> Visual inspection Digital Vernier Caliper 	<ul style="list-style-type: none"> 100% Min. 5 pcs 	<ul style="list-style-type: none"> Each lot 	<ul style="list-style-type: none"> Operator / Production Record QC-SQ-01 / Inspection Record 	<ul style="list-style-type: none"> Operator QC Inspector 	<ul style="list-style-type: none"> Reject and Scrap (QC-IP-01) Increased amount of testing (QC-IP-01)
4	Press Arm	Bench Press machine	<ul style="list-style-type: none"> WI (FN-VP-01) 	<ul style="list-style-type: none"> Keeper strength 	<ul style="list-style-type: none"> No crack No move 	<ul style="list-style-type: none"> Visual inspection Test move with hand 	<ul style="list-style-type: none"> 100% 	<ul style="list-style-type: none"> Each lot 	<ul style="list-style-type: none"> Operator / Production Record Operator / Production Record 	<ul style="list-style-type: none"> Operator Operator 	<ul style="list-style-type: none"> Reject and Scrap (QC-IP-01) Reject and Scrap (QC-IP-01)


Lampiran 8. Process Control Plan Jaw ENR22

PT. DEF
PROCESS CONTROL PLAN

No.	Process Name	Facilities/ Machine	Document	Point	Standard	Evaluation technique	Size	Sample			Responsibility	Reaction Plan
								Freq	Control method	Control method		
Prototype: <input checked="" type="checkbox"/> Pre-launch <input checked="" type="checkbox"/> Production <input checked="" type="checkbox"/>												
Process Name: Manufacture of Jaw ENR22 AC: Quality Assurance Manager Core Team: Production and QC Product Name: Right Spec Doc. Number: GMR-PCP-04 Flirt Approval Date: November 23, 2011 Product Reference: ENR22-2x600 Revision No.: 08 Page: 4 of 6 Customer Engineering approval (if Req'd): Refer to Planning of Product Realization Procedure Customer Quality Approval (if Req'd): Refer to Planning of Product Realization Procedure Signature: <i>[Signature]</i>												
1	Casting	Gravity casting	<ul style="list-style-type: none"> WI (FM-FQ-01) WI (FM-BA-01) WI (FM-GC-01) WI (QC-TM-01) 	Surface Consistency of temperature Conformance to mechanical specification	<ul style="list-style-type: none"> Smoothness Legibility 680°C - 760°C ± 50 Min 	<ul style="list-style-type: none"> Visual inspection Visual inspection Torque meter 	100%	Each lot	Operator / Production Record	Operator	Reject and Reworking	
2	Cutting	Band Saw machine	<ul style="list-style-type: none"> WI (FM-BS-01) 	Consistency of cutting	Body jaw is not truncated	<ul style="list-style-type: none"> Visual inspection 	100%	Each lot	Operator / Production Record	Operator	Controling every one hour	
3	Buffing	Grinding machine	<ul style="list-style-type: none"> WI (FM-BF-01) WI (QC-JS-01) 	Surface Conformance to dimension	Smoothness Drawing	<ul style="list-style-type: none"> Visual inspection Digital Vernier Caliper 	100%	Each lot	Operator / Production Record	Operator	Reject and Scrap (QC-SP-01)	
4	Press M4	Press M4 machine	<ul style="list-style-type: none"> WI (FM-VP-01) 	Jaw strength	No crack Nut no release	<ul style="list-style-type: none"> Visual inspection Release Nut with hand 	100%	Each lot	Operator / Production Record	Operator	Increased amount of testing (QC-SP-01)	


Lampiran 9. Process Control Plan Final Assembling

PT. DEF
PROCESS CONTROL PLAN

Prototype		<input checked="" type="checkbox"/>	Pre-launch	<input checked="" type="checkbox"/>	Production	<input checked="" type="checkbox"/>	Revision No.: 00	Page: 5 of 6			
Process Name: Final Assembling		PIC: Quality Assurance Manager					Customer Engineering approval (if Req'd): Refer to Planning of Product Realization Procedure				
Product Name: Rigid Spacer		Core Team: Production and QC					Customer Quality Approval (if Req'd): Refer to Planning of Product Realization Procedure				
Product Reference: ENR22-32400		Doc. Number: QARR-PCP-05					Signature: 				
		Plant Approval Date: November 23, 2011									
Process			Control Point				Sample				
No.	Process Name	Facilities/ Machine	Document	Point	Standard	Evaluation technique	Size	Freq.	Control method	Responsibility	Reaction Plan
1	Final Assembling		- MI (FM-ARS-01) - MI (QC-IS-01) - MI (QC-TM-01)	Surface	- Smoothness - Legibility	- Visual inspection	100%	Each lot	Operator / Production Record	Operator	Return to production (rework)
				Conformance to dimension	Drawing	Digital Vernier Caliper	Min. 5 pcs	Each lot	QC-SQ-01 / Inspection Record	QC Inspector	Return to production (rework) or scrap
				Conformance to mechanical specification	≥ 50 Nm	- Torque meter	Min. 5 pcs	Each lot	QC-SQ-01 / Inspection Record	QC Inspector	Scrap & increased amount of testing

Lampiran 10. Process Control Plan Warehouse and Shipping

PT. DEF
PROCESS CONTROL PLAN

Prototype		<input checked="" type="checkbox"/> Pre-launch	<input checked="" type="checkbox"/> Production	<input checked="" type="checkbox"/>	PKC: Quality Assurance Manager	Revision No.: 00	Page: 6 of 6					
Process Name: Warehouses & Shipping					Core Team: Warehouses and QC	Customer Engineering approval (if Req'd): Refer to Planning of Product Realization Procedure						
Product Name: Rigid Specier					Doc. Number: QM-PCP-08	Customer Quality Approval (if Req'd): Refer to Planning of Product Realization Procedure						
Product Reference: ENR23-2r400					Plant Approval Date: November 23, 2011	Signature: 						
		Process			Control Point		Sample		Responsibility		Reaction Plan	
No.	Process Name	Facilities/ Machines	Document	Point	Standard	Evaluation techniques	Size	Freq.	Control method			
1	Storage		WI (WH-SS-01)	ID / Code check	Load slip	- Visual inspection	100%	Continuous	Warehouse verification	Warehouse	Return to final assembling	
				Count quantity	Load slip	- Visual inspection	100%	Continuous	Warehouse verification	Warehouse	Return to final assembling	
				Product stock rotation	FIFO	- Audit	100%	Continuous	Monthly slow moving report	Warehouse	Adjust and Recheck	
2	Delivery		WI (WH-KB-01)	Count quantity	Pick list	- Visual inspection	100%	Continuous	Warehouse verification	Warehouse	Adjust and Recheck	
				Verify condition	Clean	- Visual inspection	100%	Each truck	Warehouse verification	Warehouse	Adjust and Recheck	
				Verify document	Shipping document	- Visual inspection	100%	Each shipment	Warehouse verification	Warehouse	Adjust and Recheck	
3	Outgoing quality audit			Inspection ID / Stamping check	PASSED Stamp	- Visual inspection	100%	Each shipment	QA Auditors / record	QA	Send back to production	

Lampiran 11. Part Submission Warrant

PART SUBMISSION WARRANT

Part Name Rigid Spacers Part Number ENR22-2x400
 Safety and/or Government Yes No Engineering Drawing Change Level N/A Dated N/A
 Additional Engineering Changes N/A Dated N/A
 Shown on Drawing Number DGEMRxx-2x400 Purchase Order No. PO-xxx Weight (kg) 1.08 kg/pc
 Checking Aid Number N/A Engineering Change Level N/A Dated N/A

ORGANIZATION MANUFACTURING INFORMATION			SUBMISSION INFORMATION		
<u>PT. DEF</u>			<input checked="" type="checkbox"/> Dimensional	<input type="checkbox"/> Materials/Function	<input type="checkbox"/> Appearance
Organization Name <u>Kawar an Industri CCM, Balanra</u>			Customer Name/Division <u>PT. ABC</u>		
Street Address <u>Tangerang</u> <u>Indonesia</u> <u>15610</u>			Buyer/Buyer Code <u>ABC-xxx-xxx</u>		
City	State	Zip	Application <u>Transmission 150 kV</u>		

REASON FOR SUBMISSION

<input type="checkbox"/> Initial submission	<input type="checkbox"/> Change to Optional Construction or Material
<input type="checkbox"/> Engineering Change(s)	<input type="checkbox"/> Sub-Supplier or Material Source Change
<input type="checkbox"/> Tooling, Transfer, Replacement, Refurbishment, or additional	<input type="checkbox"/> Change in Part Processing
<input type="checkbox"/> Correction of Discrepancy	<input type="checkbox"/> Parts produced at Additional Location
<input checked="" type="checkbox"/> Other - please specify	

REQUESTED SUBMISSION LEVEL (Check one)

Level 1 - Warrant, Appearance Approval Report (for designated appearance items only).

Level 2 - Warrant, Parts, Drawings, Inspection Results, Laboratory and Functional Results

Level 3 - At Customer Location - Warrant, Parts, Drawings, Inspection Results, Laboratory and Functional Results, Appearance Approval Report, Process Capability Results, Capability Study, Process Control Plan, Gage Study, FMEA

Level 4 - Per level 3, but without parts.

Level 5 - At Supplier Location - Warrant, Parts, Drawings, Inspection Results, Laboratory and Functional Results, Appearance Approval Report, Process Capability Results, Capability Study, Process Control Plan, Gage Study, FMEA

SUBMISSION RESULTS

The results for dimensional measurements material and functional tests appearance criteria statistical process package

These results meet all drawing and specification requirements: YES NO (if "NO" - Explanation Required)

DECLARATION

I affirm that the samples represented by this warrant are representative of our parts and have been made to the applicable customer drawings and specifications and are made from specified materials on regular production tooling with no operations other than the regular production process. I have noted any deviations from this declaration below.

EXPLANATION/COMMENTS: _____

Print Name _____ Title _____ Phone No. 0

Supplier Authorized Signature _____ Date _____

FOR CUSTOMER USE ONLY

Part Disposition Approved Rejected Other _____

Customer Name _____ Customer Signature _____ Date _____

PPAP Submission Checklist

<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> _____ _____ _____ _____ _____ </div>	PT. DEF Product Line: _____ Using Location: _____ Reviewer: _____ Review Date: _____ Disposition: _____
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PP Level 3 Unless MEI SDE directs "oth"

No.	Document	PPAP Submission Level					Assessment				
		1	2	4	5	R	Received	Submitted	Complete	OK	Not OK
1	Part Submission Variant	S	S	S	S	R					
	A. PART NUMBER INCLUDED AND CORRECT. REVISION LEVEL INCLUDED AND CORRECT B. WEIGHT INCLUDED C. SUPPLIER MANUFACTURING INFORMATION COMPLETE, INCLUDING SUPPLIER CODE D. SUBMISSION INFORMATION COMPLETE. *1. ALL APPROPRIATE BOXES CHECKED *2. BUYER NAME INCLUDED *3. APPLICATION INFORMATION INCLUDES MAGNA CUSTOMER AND PROGRAM E. ELVINDS INFORMATION INCLUDED: The DEF Holly IMDS F. CORRECT REASON FOR SUBMISSION BOX CHECKED *1. IF OTHER IS CHECKED, THAT THE CORRECT REASON FOR SUBMISSION IS NOTED G. CORRECT SUBMISSION LEVEL BOX IS CHECKED H. THE SUBMISSION RESULTS AREA IS PROPERLY FILLED OUT AND THE PACKAGE REFLECTS THIS *1. PACKAGE CONTENTS MUST REFLECT SUPPLIER'S STATEMENT OF COMPLIANCE *2. FOR MULTIPLE TOOLING/CAVITIES/PROCESSES THAT THE INFORMATION IS NOTED IF APPLICABLE I. THE DECLARATION AREA CONTAINS THE RUN AT RATE INFORMATION J. SIGNATURE AREA IS COMPLETED AND CONTAINS ALL INFORMATION										
2	Design Release (Drawing, Specification)	R	S	S	R	R					
	A. A MARKED OR BALLOONED DRAWING IS ATTACHED. Note: All non reference print items and specs must be added. B. COPIES OF ALL REFERENCED SPECIFICATIONS ARE INCLUDED IN THE SUBMISSION (LEVEL 3 ONLY)										
3	Change Requirements	R	S	S	R	R					
	A. PART NUMBER LEVEL INCLUDED AND CORRECT. REVISION LEVEL INCLUDED AND CORRECT B. PART APPLICATION / PROGRAM / PLANTS IDENTIFIED C. SPECIFIES TIME SPAN OR VOLUME AFFECTED D. ACTION PLAN INCLUDED IF REQUEST IS FOR DEVIATION/CONCESSION E. SIGNED AND DATED BY PT. DEF										
4	Customer Engineering Approval Documents	R	R	S	R	R					
	A. IF PROCESS INCORPORATES UNRELEASED CHANGE, COPY OF ENGINEERING DOCUMENT INCLUDED										
5	Design PFMEA	R	R	S	R	R					
	A. PART NUMBER LEVEL INCLUDED, CURRENT AND CORRECT. REVISION LEVEL INCLUDED AND CORRECT B. DOES IT FOLLOW THE ENTIRE PROCESS AS SHOWN IN FLOW CHART? C. WHERE APPROPRIATE, DO HIGH RPN FAILURE MODES HAVE ACTIONS SHOWN FOR IMPROVEMENT? D. ARE AREAS OF CONCERN IDENTIFIED IN THE PFMEA ARE CARRIED OVER INTO THE PFMEA.										
6	Process Flow Diagram	R	R	S	R	R					
	A. PART NUMBER LEVEL INCLUDED, CURRENT AND CORRECT. REVISION LEVEL INCLUDED AND CORRECT B. MUST START WITH RECEIVING AND FINISH WITH SHIPMENT OF MATERIAL C. PROCESS FLOW DIAGRAM IS ACCURATE										
7	Process Plan	R	R	S	R	R					
	A. PART NUMBER LEVEL INCLUDED, CURRENT AND CORRECT. REVISION LEVEL INCLUDED AND CORRECT B. DOES IT FOLLOW THE ENTIRE PROCESS AS SHOWN IN FLOW CHART? C. WHERE APPROPRIATE, DO HIGH RPN FAILURE MODES HAVE ACTIONS SHOWN FOR IMPROVEMENT? D. ARE CONCERNS IDENTIFIED THAT WERE DISCOVERED IN EARLY STAGES? E. CRITICAL FEATURES IDENTIFIED ON THE PCMR/UP, BUT NOT ON THE DRAWING (CUSTOMER TOUCH POINTS, CRITICAL PROCESS CONTROLS, ETC.) ARE INCLUDED IN THE PFMEA AND HAVE RPN CALCULATED.										

Lampiran 12. PPAP Checklist (lanjutan)

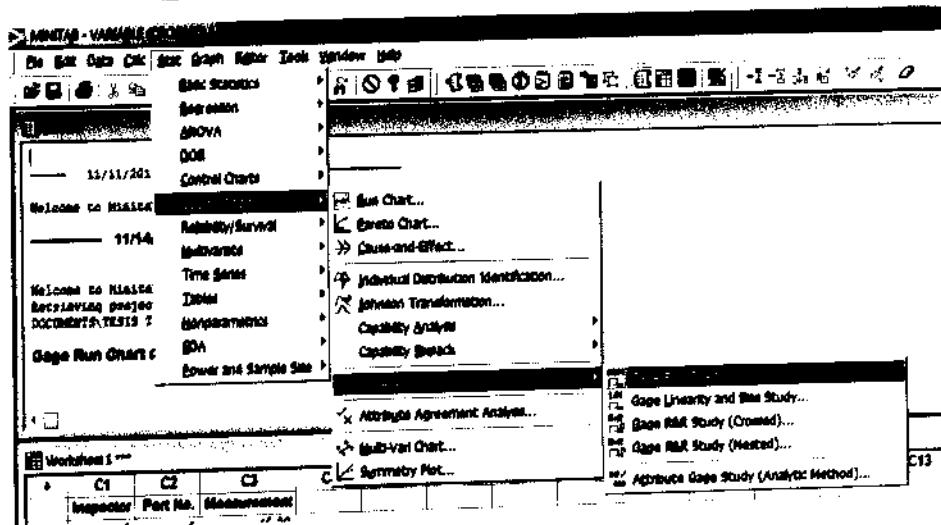
8 Dimensional Results	R	S	S	R				
<p>A. ALL DIMENSIONS AND NOTES ON THE DRAWING ARE INCLUDED IN THE INSPECTION REPORT</p> <p>B. THERE IS A SEPARATE REPORT FOR EACH CAVITY, DIE, TOOL, LINE, ETC. EXCEPTIONS CAN ONLY BE GRANTED BY PT. DEF.</p> <p>C. WHEN SAMPLES ARE SUBMITTED, THE SAMPLE NUMBER CORRESPONDS WITH (SERIALIZED TO) THE DATA. IF NON-COMPLIANCE IS DOCUMENTED, THE VARIANT LETTER DOES NOT STATE COMPLIANCE. IT IS THE EXPECTATION OF MAGNA THAT NON-COMPLIANCE ARE RECONCILED PRIOR TO PPAP</p> <p>E. DIMENSIONS ARE REPORTED IN THE SAME UNITS AS ON THE MAGNA OR CUSTOMER DRAWING</p> <p>F. LAYOUTS OF SUBCOMPONENTS AND/OR ASSEMBLIES ARE DOCUMENTED AND AVAILABLE</p>								
9 Material & Performance Test Results	R	S	S	R				
<p>A. ALL SPECIFICATIONS ON DRAWING ARE INCLUDED. COPIES OF ACTUAL SPECs ARE INCLUDED IN THE PACK</p> <p>B. ACTUAL TEST LABORATORY DATA IS INCLUDED IN THE PACKAGE</p> <p>C. CERTIFIED LABORATORY USE (INCLUDED ARE COPIES OF CERTIFICATION AND SCOPE OF ACCREDITATION)</p> <p>D. DATA SHOWS TEST REQUIREMENTS AND RESULTS FOR EACH TEST, DETAILED IN EACH SPECIFICATION REFERENCED ON THE DRAWING</p> <p>E. MAGNA PART NUMBER AND REVISION LEVEL ARE INCLUDED ON EACH PAGE FOR ALL DATA</p>								
10 Control Process Data	R	R	S	R				
<p>A. CAPABILITY STUDY RESULTS ARE SUBMITTED ON THE <i>PRODUCT CHARACTERISTICS MATRIX</i> (per MAGNA 100)</p> <p>B. STUDIES ARE CONDUCTED FOR ALL CRITICAL AND SIGNIFICANT CHARACTERISTICS (EXCEPT DIMENSIONS WITH BONUS TOLERANCES). EACH STUDY MUST INCLUDE THE STUDY DATE.</p> <p>C. TEN (10) MEASUREMENTS FOR BONUS TOLERANCE DIMENSIONS ARE INCLUDED BY PER MAGNA SDC DPEC</p> <p>D. P_{min} FOR ALL CHARACTERISTICS ARE GREATER THAN, OR EQUAL TO, 1.37.</p> <p>E. IF NO. A WRITTEN CORRECTIVE ACTION STATEMENT, FOR EACH, IS INCLUDED AND CONTAINMENT, WHEN FEASIBLE, IS 100% INSPECTION.</p> <p>F. RAW DATA IS INCLUDED FOR EACH STUDY</p> <p>G. PROCESS AVERAGES MATCH FOR MULTIPLE CAVITIES, DIES AND TOOL PROCESSES.</p>								
11 Measurement System Analysis	R	R	S	R				
<p>A. STUDIES ARE INCLUDED (AND DATED) FOR GAGES USED TO MEASURE SIGNIFICANT AND CRITICAL DIMS</p> <p>B. GAGE R & R FORM IS USED FROM MEASUREMENT ANALYSIS HANDBOOK</p> <p>C. WRITTEN CORRECTIVE ACTIONS ARE INCLUDED FOR GAGE R&R'S GREATER THAN 20%.</p> <p>D. THREE (3) OPERATORS, THREE (3) TRIALS ARE UTILIZED.</p> <p>E. FORMS ARE COMPLETELY FILLED OUT.</p> <p>F. WAS THE PROCESS CAPABILITY CALCULATED MADE OFF PARTS MADE FOR PPAP SUBMISSION?</p>								
12 Laboratory Accreditation	R	S	S	R				
<p>A. CERTIFICATE OF ACCREDITATION IS FROM A NATIONALLY RECOGNIZED ORGANIZATION</p> <p>B. SCOPE OF ACCREDITATION IS INCLUDED</p>								
13 Control Plan	R	R	S	R				
<p>A. PART NUMBER LEVEL INCLUDED AND CORRECT. REVISION LEVEL INCLUDED AND CORRECT</p> <p>B. DOES CONTROL PLAN REFLECTS LAUNCH-PRACTICE ITEMS?</p> <p>C. DOES IT SHOW SAME REVISION LEVEL AS PFMEA?</p> <p>D. CONTROL PLAN ADDRESSES ALL SIGNIFICANT AND CRITICAL DIMENSIONS.</p> <p>E. CONTROL PLAN ADDRESSES THE ENTIRE PROCESS FROM RECEIPT OF MATERIAL TO SHIPPING PRODUCT</p> <p>F. CONTROL PLAN INCLUDES ANNUAL REVALIDATION REQUIREMENTS.</p> <p>G. CRITICAL FEATURES IDENTIFIED ON THE PCM, BUT NOT ON THE DRAWING (CUSTOMER TOUCH POINTS, CR PROCESS CONTROLS, ETC.) ARE INCLUDED IN THE PFMEA AND HAVE PPN CALCULATED.</p>								
14 Customer Requirements	S	S	S	R				
15 Process	R	R	R	R				
16 Material	R	R	R	R				
17 Inspection	R	R	R	R				
18 Customer Requirements	R	R	S	R				
19 Customer Requirements	R	R	S	R				
20 Customer Requirements	R	R	S	R				
21 Customer Requirements	R	R	S	R				
22 Customer Requirements	R	R	S	R				
23 Customer Requirements	R	R	S	R				
24 Customer Requirements	R	R	S	R				
25 Customer Requirements	R	R	S	R				
26 Customer Requirements	R	R	S	R				
27 Customer Requirements	R	R	S	R				
28 Customer Requirements	R	R	S	R				
29 Customer Requirements	R	R	S	R				
30 Customer Requirements	R	R	S	R				
31 Customer Requirements	R	R	S	R				
32 Customer Requirements	R	R	S	R				
33 Customer Requirements	R	R	S	R				
34 Customer Requirements	R	R	S	R				
35 Customer Requirements	R	R	S	R				
36 Customer Requirements	R	R	S	R				
37 Customer Requirements	R	R	S	R				
38 Customer Requirements	R	R	S	R				
39 Customer Requirements	R	R	S	R				
40 Customer Requirements	R	R	S	R				
41 Customer Requirements	R	R	S	R				
42 Customer Requirements	R	R	S	R				
43 Customer Requirements	R	R	S	R				
44 Customer Requirements	R	R	S	R				
45 Customer Requirements	R	R	S	R				
46 Customer Requirements	R	R	S	R				
47 Customer Requirements	R	R	S	R				
48 Customer Requirements	R	R	S	R				
49 Customer Requirements	R	R	S	R				
50 Customer Requirements	R	R	S	R				
51 Customer Requirements	R	R	S	R				
52 Customer Requirements	R	R	S	R				
53 Customer Requirements	R	R	S	R				
54 Customer Requirements	R	R	S	R				
55 Customer Requirements	R	R	S	R				
56 Customer Requirements	R	R	S	R				
57 Customer Requirements	R	R	S	R				
58 Customer Requirements	R	R	S	R				
59 Customer Requirements	R	R	S	R				
60 Customer Requirements	R	R	S	R				
61 Customer Requirements	R	R	S	R				
62 Customer Requirements	R	R	S	R				
63 Customer Requirements	R	R	S	R				
64 Customer Requirements	R	R	S	R				
65 Customer Requirements	R	R	S	R				
66 Customer Requirements	R	R	S	R				
67 Customer Requirements	R	R	S	R				
68 Customer Requirements	R	R	S	R				
69 Customer Requirements	R	R	S	R				
70 Customer Requirements	R	R	S	R				
71 Customer Requirements	R	R	S	R				
72 Customer Requirements	R	R	S	R				
73 Customer Requirements	R	R	S	R				
74 Customer Requirements	R	R	S	R				
75 Customer Requirements	R	R	S	R				
76 Customer Requirements	R	R	S	R				
77 Customer Requirements	R	R	S	R				
78 Customer Requirements	R	R	S	R				
79 Customer Requirements	R	R	S	R				
80 Customer Requirements	R	R	S	R				
81 Customer Requirements	R	R	S	R				
82 Customer Requirements	R	R	S	R				
83 Customer Requirements	R	R	S	R				
84 Customer Requirements	R	R	S	R				
85 Customer Requirements	R	R	S	R				
86 Customer Requirements	R	R	S	R				
87 Customer Requirements	R	R	S	R				
88 Customer Requirements	R	R	S	R				
89 Customer Requirements	R	R	S	R				
90 Customer Requirements	R	R	S	R				

Lampiran 13. Tahapan Analisis Gage Run Chart (Sumber: Minitab 14)

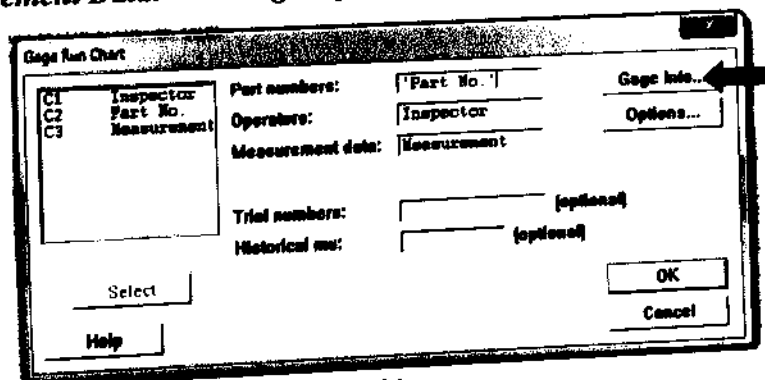
1. *Input data hasil pengukuran ke dalam Minitab work sheet.*

	C1	C2	C3	C4	C5	C6	C7
	Inspector	Part No.	Measurement				
1	1	1	45.38				
2	1	1	46.05				
3	2	1	46.13				
4	2	1	46.08				
5	3	1	45.89				
6	3	1	44.78				
7	1	2	45.89				
8	1	2	46.13				
9	2	2	46.08				
10	2	2	45.86				
11	3	2	45.91				

2. *Klik Stat > Quality Tools > Gage Study > Gage Run Chart.*



3. *Masukan Part No. > Part Number ; Inspector > Operator ; Measurement > Measurement Data. Klik Gage Info.*



4. Input Data-data mengenai alat ukur dan pelaksanaan pengukuran. Klik OK.

The screenshot shows a dialog box titled "Gage R&R Study (Crossed) - Gage Info". It contains several input fields with the following text:

- Gage name: Digital Vernier Caliper
- Date of study: Agustus - Oktober 2011
- Reported by: QA Staff
- Gage Tolerance: 45 ± 1.3
- Miscellaneous: Sampling

At the bottom, there are three buttons: "Help", "OK", and "Cancel". An arrow points to the "OK" button.

5. Klik OK.

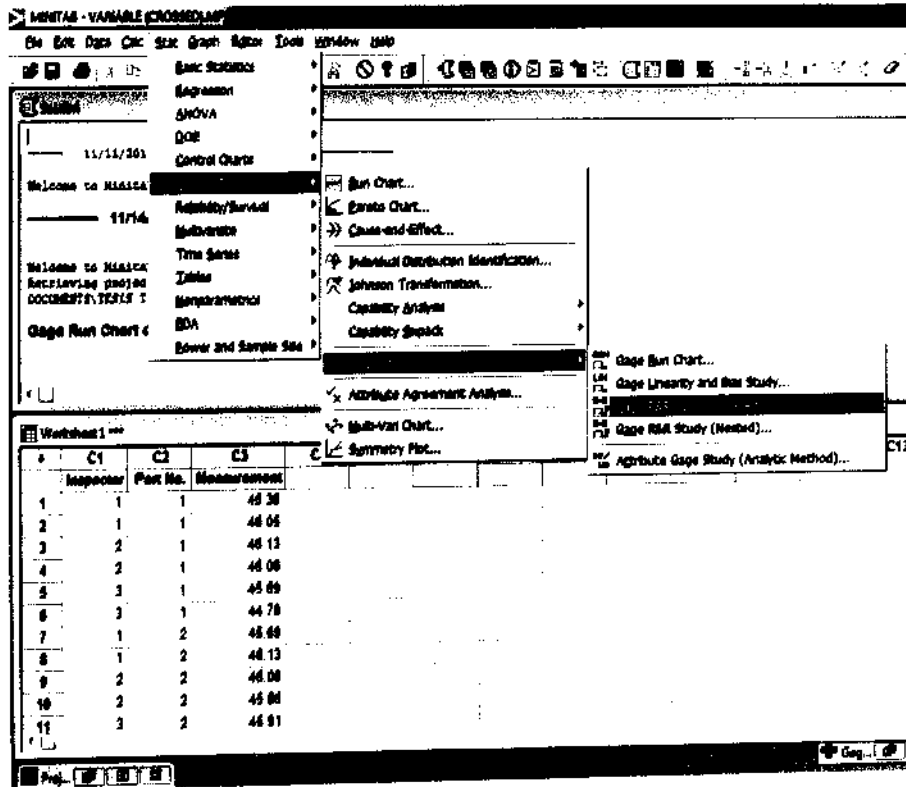
The screenshot shows a dialog box titled "Gage Run Chart". It contains several input fields and buttons:

- Inspector: Part No.
- Operator: Inspector
- Measurement data: Measurement
- Trial numbers: (optional)
- Historical no: (optional)

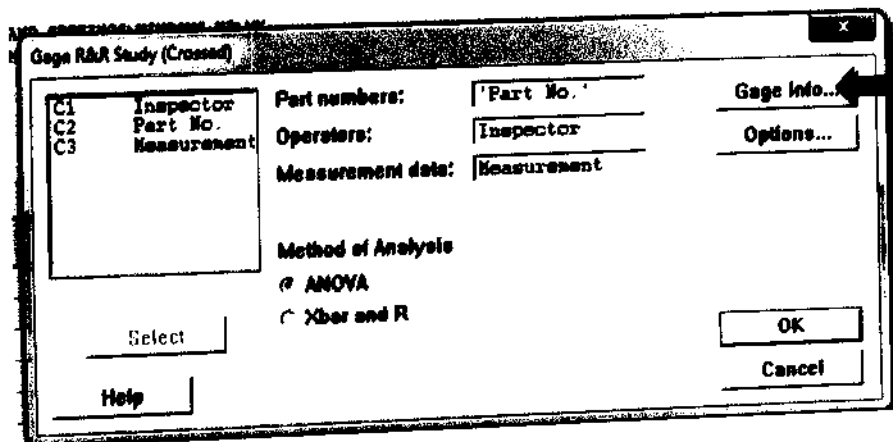
At the bottom, there are three buttons: "Select", "OK", and "Cancel". An arrow points to the "OK" button.

Lampiran 14. Tahapan Analisis *Gage R&R Study-ANOVA (Crossed)* (Sumber: Minitab 14)

1. Klik *Stat > Quality Tools > Gage Study > Gage R&R Study (Crossed)*



2. Masukkan *Part No. > Part Number ; Inspector > Operator ; Measurement > Measurement Data*. Klik *ANOVA > Gage Info*.



3. Input Data-data mengenai alat ukur dan pelaksanaan pengukuran. Klik OK.

The screenshot shows a dialog box titled "Gage R&R Study (Crossed) - Gage Info". It contains several input fields with the following data: "Gage name: Digital Vernier Caliper", "Date of study: Agustus - Oktober 2011", "Reported by: QA Staff", "Gage Tolerance: 45 ± 1.3", and "Miscellaneous: Sampling". At the bottom, there are three buttons: "Help", "OK", and "Cancel". An arrow points to the "OK" button.

4. Klik OK.

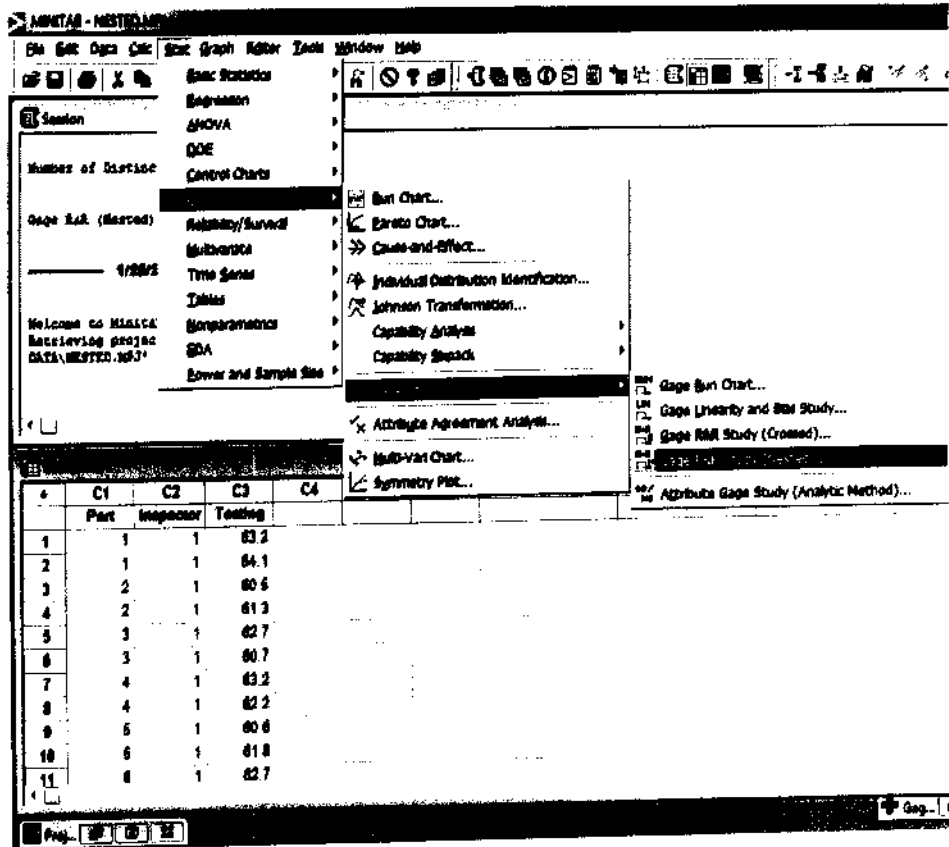
The screenshot shows a dialog box titled "Gage R&R Study (Crossed)". It features a table on the left with the following content:

C1	Inspector
C2	Part No.
C3	Measurement

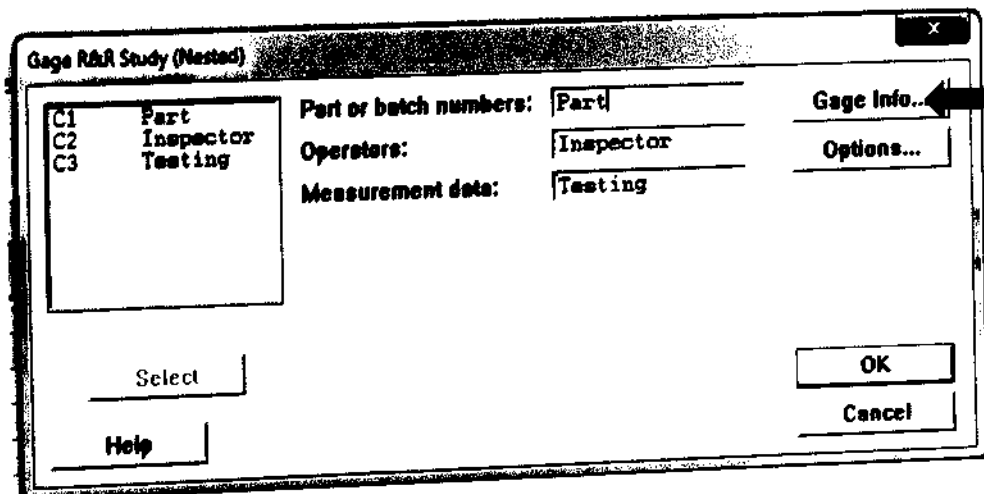
To the right of the table are three input fields: "Part numbers: Part No.", "Operators: Inspector", and "Measurement data: Measurement". Below these are two buttons: "Gage Info..." and "Options...". Underneath is the "Method of Analysis" section with two radio buttons: "ANOVA" (which is selected) and "Xbar and R". At the bottom, there are four buttons: "Select", "Help", "OK", and "Cancel". An arrow points to the "OK" button.

Lampiran 15. Tahapan Analisis *Gage R&R Nested* (Sumber: Minitab 14)

1. Klik *Stat > Quality Tools > Gage Study > Gage Linearity and Bias Study*



2. Masukkan *Part No. > Part Number ; Inspector > Operator ; Measurement > Measurement Data*. Klik *ANOVA > Gage Info*.



3. Input Data-data mengenai alat ukur dan pelaksanaan pengukuran. Klik OK.

Gage R&R Study (Nested)

Gage R&R Study (Nested) - Gage Info

Gage name:	Torai Meter
Date of study:	Agustus - Oktober 2011
Reported by:	QA Staff
Gage Tolerance:	> 50µm
Miscellaneous:	Sampling

Help OK Cancel

4. Klik OK.

Gage R&R Study (Nested)

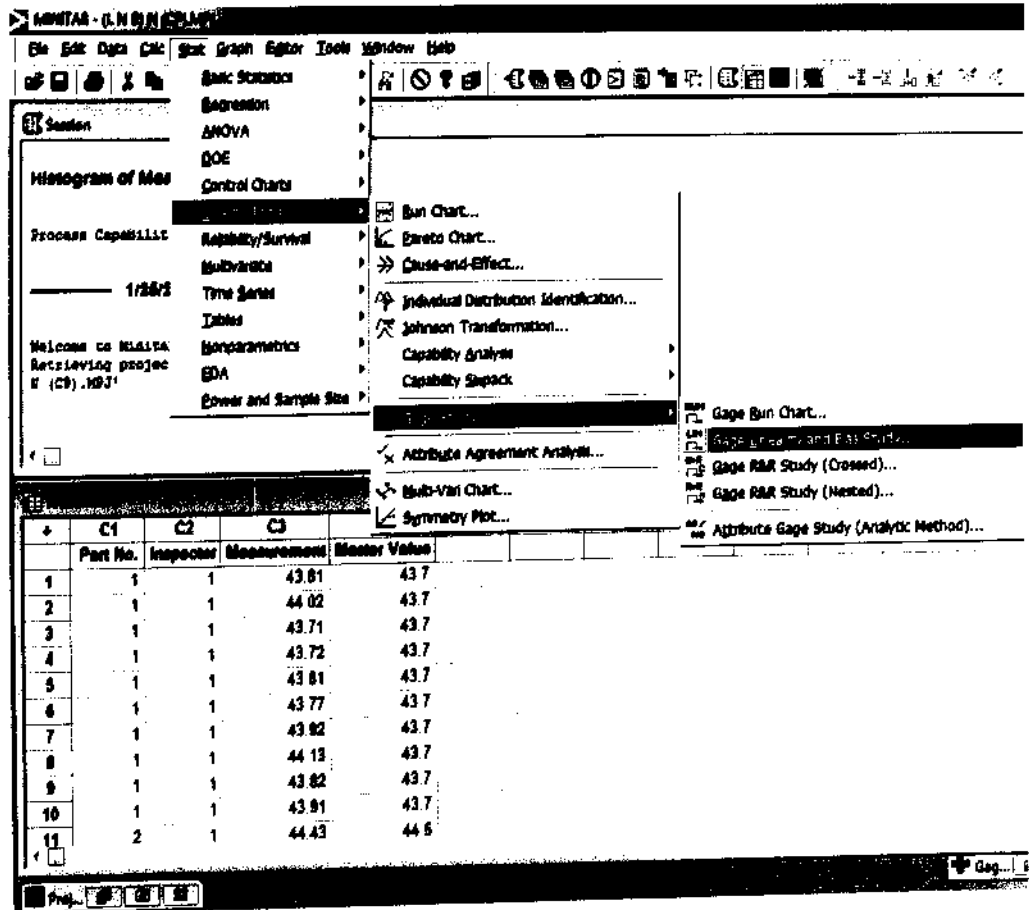
C1 Part	Part or batch numbers:	Part	Gage Info...
C2 Inspector	Operators:	Inspector	Options...
C3 Testing	Measurement date:	Testing	

Select OK Cancel

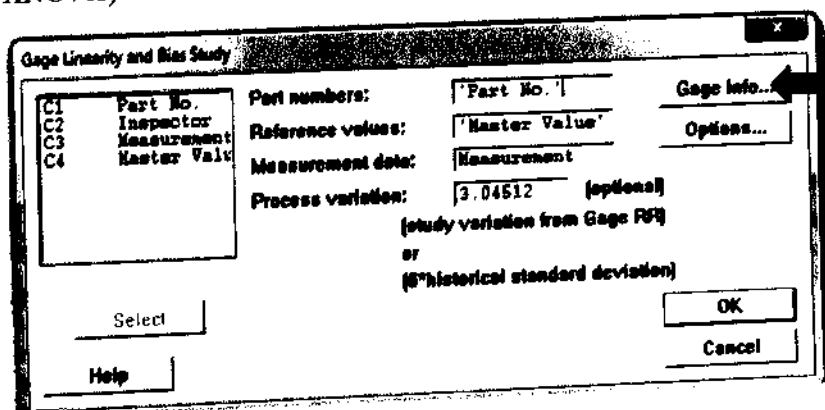
Help

Lampiran 16. Tahapan Analisis *Gage Linearity and Bias Study* (Sumber: Minitab 14)

1. Klik *Stat > Quality Tools > Gage Study > Gage Linearity and Bias Study*.



2. Masukkan *Part No.* ke *Part Number* ; *Mater Value* ke *Reference Value* ; *Measurement > Measurement Data* ; input 3.04521 (hasil *Gage R%R ANOVA*) ke *Process Variation*. Klik *Gage info*.



3. Input Data-data mengenai alat ukur dan pelaksanaan pengukuran. Klik OK.

The screenshot shows a dialog box titled "Gage Linearity and Bias - Gage Info". It contains several input fields with the following values:

Gage name:	Digital Vernier Caliper
Date of study:	Agustus - Oktober 2011
Reported by:	QA Staff
Gage Tolerance:	45 ± 1.3
Miscellaneous:	Sampling

At the bottom, there are three buttons: "Help", "OK" (with a mouse cursor pointing to it), and "Cancel".

4. Klik OK.

The screenshot shows a dialog box titled "Gage Linearity and Bias Study". It features a table on the left and several input fields on the right.

	Part No.
C1	Inspector
C2	Measurement
C3	Master Valu
C4	

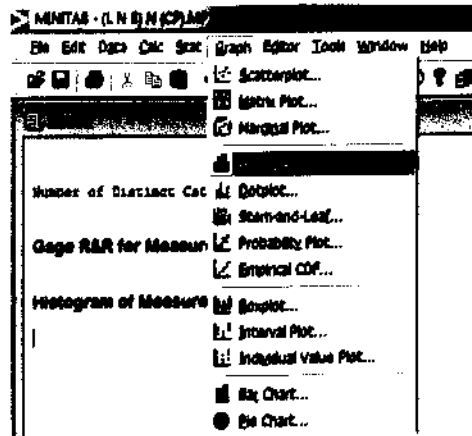
Input fields on the right:

- Part numbers: 'Part No.'
- Reference values: 'Master Value'
- Measurement data: Measurement
- Process variation: 3.04512 (optional)
(study variation from Gage RR)
or
(6*historical standard deviation)

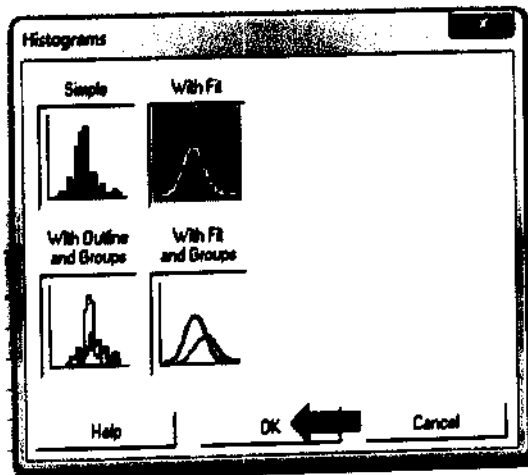
Buttons at the bottom: "Select", "Help", "OK" (with a mouse cursor pointing to it), and "Cancel".

Lampiran 17. Tahapan Histogram

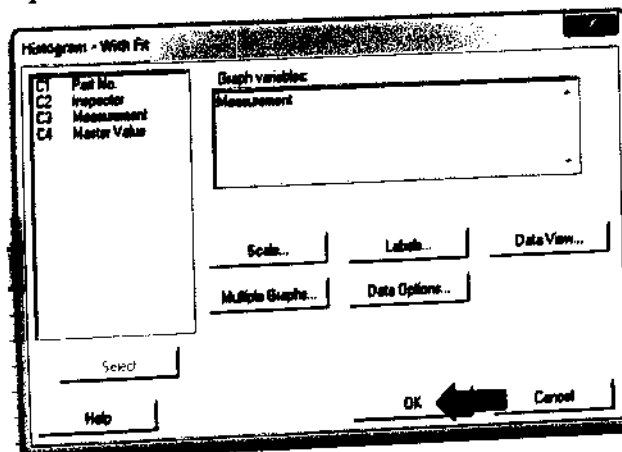
1. Klik *Graph > Histogram*



2. Klik *With Fit > OK*.

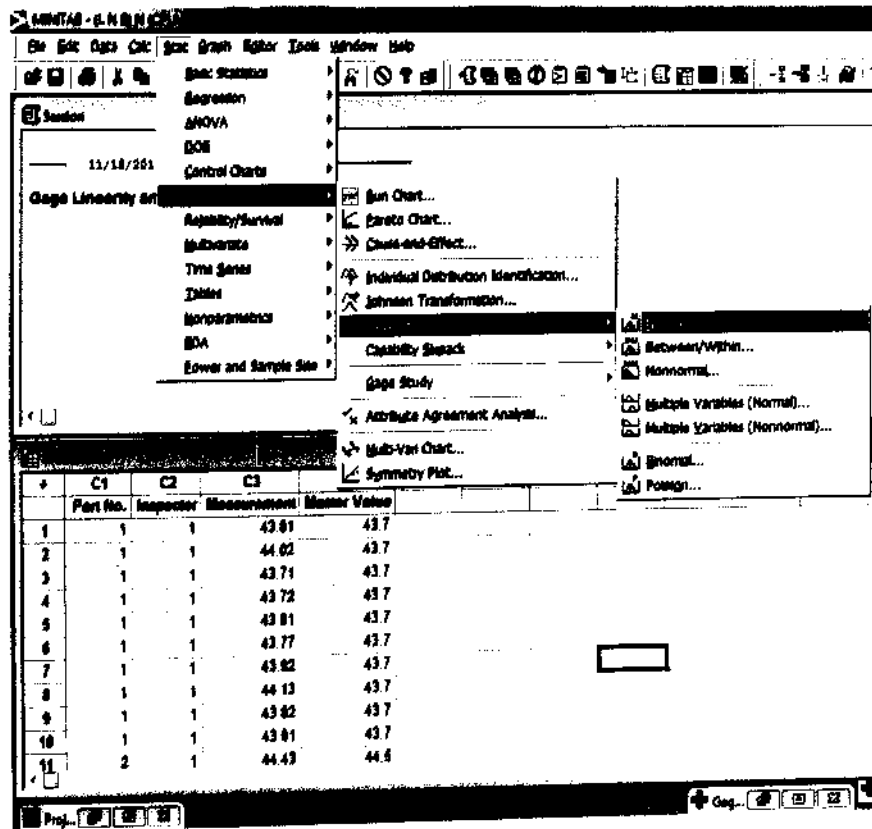


3. Input *Measurement* ke kolom *Graph variables > OK*.

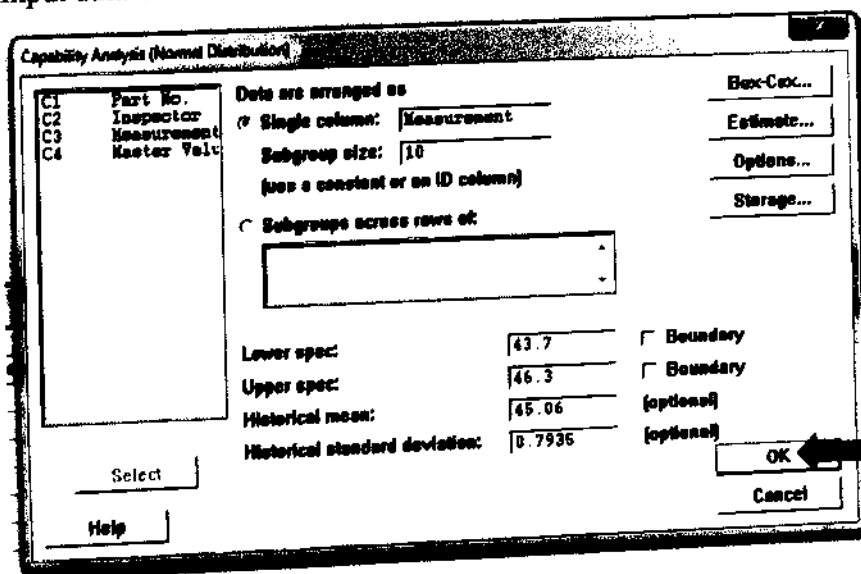


Lampiran 18. Tahapan Analisis Kapabilitas Proses (Sumber: Minitab 14)

1. Klik *Stat > Quality Tools > Capability Analysis > Normal*



2. Input data-data sesuai kolom yang disediakan. Klik OK.



Lampiran 19. *Tabel Risiko Alfa dan Nilai Z*

<i>Risiko Alfa</i>	<i>Nilai Z dua sisi ($\alpha/2$)</i>	<i>Nilai Z satu sisi (α)</i>	<i>Tingkat kepercayaan</i>
<i>0.100</i>	<i>1.64</i>	<i>1.28</i>	<i>90.0%</i>
<i>0.050</i>	<i>1.96</i>	<i>1.64</i>	<i>95.0%</i>
<i>0.025</i>	<i>2.24</i>	<i>1.96</i>	<i>97.5%</i>
<i>0.010</i>	<i>2.58</i>	<i>2.33</i>	<i>99.0%</i>

Lampiran 20. Jumlah Cacat Produk Keeper ENR22 Sebelum dan Sesudah Perbaikan (*Proses Casting*)

No.	Bulan	Jumlah Produksi	Jumlah Cacat	No.	Bulan	Jumlah Produksi	Jumlah Cacat
1.	September '11	31,227	2,531	1.	Desember '11	41,244	1,207
2.	Oktober '11	42,408	1,876	2.	Januari '12	45,198	1,059
3.	November '11	43,790	2,247	3.	Februari '12	-	-
Total		117,425	6,654	Total		86,442	2,266
Persentase		5.67%		Persentase		2.62%	

Sumber Data: Dept. QA PT. DEF

Lampiran 21. Jumlah Cacat Produk Spacer ENR22 Sebelum dan Sesudah Perbaikan (*Proses Casting*)

No.	Bulan	Jumlah Produksi	Jumlah Cacat	No.	Bulan	Jumlah Produksi	Jumlah Cacat
1.	September '11	32,571	918	1.	Desember '11	42,713	824
2.	Oktober '11	42,735	1,357	2.	Januari '12	45,375	1,116
3.	November '11	43,148	1,258	3.	Februari '12	-	-
Total		118,454	3,533	Total		88,088	1,940
Persentase		2.98%		Persentase		2.20%	

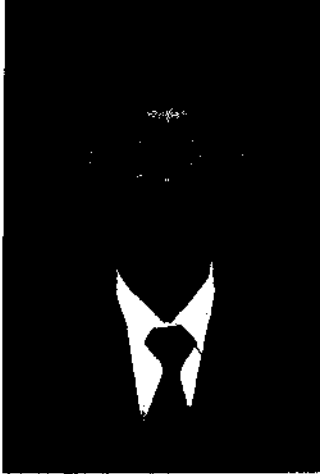
Sumber Data: Dept. QA PT. DEF

Lampiran 22. Jumlah Cacat Proses Press Sebelum dan Sesudah Perbaikan (Proses Pressing)

No.	Bulan	Jumlah Produksi	Jumlah Cacat	No.	Bulan	Jumlah Produksi	Jumlah Cacat
1.	September '11	16,018	873	1.	Desember '11	20,792	684
2.	Oktober '11	20,281	903	2.	Januari '12	22,546	725
3.	November '11	22,179	921	3.	Februari '12	-	-
Total		58,478	2,697	Total		43,338	1,409
Persentase		4.61%		Persentase		3.25%	

Sumber Data: Dept. QA PT. DEF

DAFTAR RIWAYAT HIDUP



Personal Data :

Name : Henri Ponda
Place/Date of Birth : Pemalang, January 1st, 1984
Gender : Man
Nationality : Indonesia
Religion : Moslem
Address : Jl. KH Maulana Hasanudin Gg.
Ampera 1 RT 04/01 No. 72 Blok
C Poris Gaga, Batucapeper-
Tangerang 15122.
Hp: 0818-0897-3990. **email:**
henri_ponda@yahoo.com

Formal Education :

- 2010 – 2012
Master Degree of Industrial Engineering from **Mercu Buana University**
- 2002 – 2006
Bachelor Degree of Industrial Engineering from **Indonusa Esa Unggul University**
- 1999 – 2002
SMK YUPPENTEK I, Tangerang
- 1996 - 1999
SMP Negeri 7, Tangerang
- 1990 – 1996
SD Negeri V, Tangerang

Informal Education :

- *September 2006 (2 Days)*
Training of Awareness ISO 9001:2000
- *February 2007 (1 Days)*
Training of Awareness ISO 14001
- *April 2007 (2 Days)*
Training of Internal Quality Audit ISO 9001:2000 Base on ISO 19011
- *July 2008 (3 Days)*
Training of HACCP
- *March 2009 (1 Days)*
Training of Awareness ISO 9001:2008
- *December 2011 (2 Days)*
Training of Internal Quality Audit ISO 9001:2008 Base on ISO 19011

Activity :

- *2003 – 2007*
Coordinator Laboratory of PPIC (Forecasting, Agregate and Disagregate, Inventory, Line Balancing, and Scheduling) in INDONUSA Esa Unggul University.
- *2003 – 2007*
Coordinator Laboratory of Production System (MRP, RCCP, & JIT) in INDONUSA Esa Unggul University.
- *2003 – 2007*
Coordinator IPMC (Indomusa Production Management Center) in INDONUSA Esa Unggul University.
- *July 2003 – October 2003*
Job of Practice in PT Panasonic EWGMI, Cikarang with theme "Line Balancing".

- *July 2005 – October 2005*
Research of Final Project in PT Panasonic EWGMI, Cikarang with theme
“Improvement Quality Product WEJP 1131-7 with Six Sigma Methodology
***in Wiring Device Deprodukment**”.*
- *February 2006*
Committee seminar of SCM (Supply Chain Management) collaboration
between Indonusa Esa Unggul Univ & Bina Nusantara Univ.
- *2003 - 2007*
Member Reliability Study Club at Indonusa Esa Unggul University.
- *April 2006 – July 2006*
Implementation and Certification Quality Management System ISO 9001:2000
in PT Hasura Mitra Gemilang, Tangerang. Under the affiliation of Quantum
Innovition Consulting.
- *July 2006 – October 2006*
Implementation and Certification Quality Management System ISO 9001:2000
in PT GEUMCHEON Indo, Tangerang. Under the affiliation of Quantum
Innovition Consulting.
- *August 2006 – November 2006*
Implementation and Certification Quality Management System ISO 9001:2000
in PT Fajar Karya Gemilang, Tangerang. Under the affiliation of Quantum
Innovition Consulting.
- *September 2006 – January 2007*
Implementation and Certification Quality Management System ISO 9001:2000
in PT OSTEK Indonesia, Tangerang. Under the affiliation of Quantum
Innovition Consulting.
- *April 2007 – November 2007*
Implementation and Certification Quality Management System ISO 9001:2000
combo with Environmental Management System ISO 14001:2003 in PT
Hankuk Color Indonesia, Tangerang. Under the affiliation of Quantum
Innovition Consulting.

- *System Documentation for HSE (Health, Safety, and Environment), February 2008, PT Anugerah Widjaja Mandiri Chemindo, Under the affiliation of Sintegral Consulting.*
- *November 2008 – March 2009
Implementation and Certification Environmental Management System ISO 14001:2003 in SMKN 2, Subang. Under the affiliation of Global Consulting.*
- *March 2009 – July 2009
Implementation and Certification Quality Management System ISO 9001:2008 in PT Kuray International Globe, Jakarta. Under the affiliation of Integrated Management System Consulting.*
- *April 2009 – August 2009
Implementation and Certification Quality Management System ISO 9001:2008 in PT Gametri, Cikarang. Under the affiliation of Sintegral Consulting.*
- *August 2009 – December 2009
Implementation and Certification Quality Management System ISO 9001:2008 integrated OHSAS 18001:2007 in PT Darma Karya Dhika, Jakarta. Under the affiliation of Sintegral Consulting.*
- *November 2009 – February 2010
Upgrading and Certification Quality Management System ISO 9001:2000 to version ISO 9001:2008 in PT. Mustika Ratu, Jakarta. Under the affiliation of Sintegral Consulting.*
- *December 2009 – March 2010
Implementation and Certification Quality Management System ISO 9001:2000 integrated OHSAS 18001:2007 in PT. Pundi, Jakarta. Under the affiliation of Sintegral Consulting.*

Job Experience :

- *April 2006 – September 2006*
Junior Consultan in PT Quantum Innovation Consulting.
- *April 2006 – present*
Freelance consultant in PT. Sintegral Consulting, PT. Integrated Management System, PT. Global Consutling, and Visi Consulting.
- *September 2006 – June 2007*
QMR and QA Dept. Head in PT SARANA UNGGUL PRATAMA (Manufacture Component Automotif, Jig, Tools, and Dies).
- *July 2007 – December 2011*
QMR and QA Dept. Head in PT Sicamindo {Production, Marketing and Sale of Accessories for Low-Voltage ABC Lines (Insulated Piercing Connectors and Accessories) and Transmission Lines Up To and Including 500 kV}.
- *July 2011 – present*
Lecturer of Industrial Engineering Department in Muhammadiyah Tangerang University.
- *January 2012 - present*
QMR in PT Gerbang Sranbaja (Steel Structure and Pressure Vessel).