



Supplier Guideline

Initial Sampling Procedure for the ElringKlinger Group worldwide



Version; Date
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CGL CU-SQM 006

Informationclassification
Intern & External

Table of Contents ②

Introduction	4
Initial Sampling	5
Sample submission and ElringKlinger decision of approval for production shipment authorization	6
Initial sampling checklist.....	6
Part Submission Warrant according AIAG	8
Drawing.....	9
Dimensional Results, Product related deliverables, Functional tests	10
Process capability study, Machine capability study for all SC/CC	13
Test equipment capability, Test equipment list, Gage, Gage Measurement Report.....	13
Technical cleanliness, Corrosion test.....	18
Requalification	18
Product-specific inspections	19
IMDS.....	22
Process Flow	24
Control Plan according to IATF 16949	25
Control of new launches (start of production, SOP)	26
FMEA.....	28
Tool	29
Process performance test (Run@rate).....	32
Capacity Analysis per part or part with more than one project.....	34
Part history	36
Written self-assessment of serial production maturity of product and process	37
Packaging instruction.....	39
Customer specific documents (if required)	41
Master and product sample	41
Request for Deviation (RfD).....	42
Request of change (RoC)	43
Check label cleanpoint delivery ③	45

Revision index

Number	Date of change	Comments
1	2019.01.01	Creation
2	2019.07.23	Adding table of contents, correction of failures
3	2020.03.04	Correction capability values, delete initial sampling checklist, adding CF CU-QM 128 label cleanpoint delivery, adding ZF QM 128 request of change
4	2020.12.09	Needed change over all documents acc. VDA 2 revision
5	2024.05.29	Department name change from QS to SQM
6		
7		

Introduction

With the initial sample procedure, the supplier confirms that he has fully understood the requirements and specifications defined by ElringKlinger and that he can guarantee these under series production conditions.

To ensure a smooth, fast and complete sampling process, the following points must be observed to complete initial sample inspection submission. The following manual has been created to give suppliers of the ElringKlinger group worldwide a guideline how initial sampling documents have to be generated. For each necessary document you will find at least an explanation which information is required to fulfill the standards of the ElringKlinger group worldwide.

ElringKlinger expects a complete and correct filled out initial sampling documentation. Otherwise this can affect your supplier evaluation for the current time period.

To be sure that you use the current and valid documents please visit our ElringKlinger Homepage:
<https://www.elringklinger.de/en/company/supply-chain-management/initial-sampling>

The trigger matrix for initial sampling can be found in VDA 2. General main reasons for an initial sample procedure are:

1. Supply of a new part or new assembly group
2. Modification to a drawing/specification
3. Production or machine relocation
4. When changing to new or replacing obsolete tools
5. New sub-supplier
6. New or modified production process
7. Interrupt production for more than >1 year
8. Requirement from ElringKlinger

In cases 1. to 2., initial samples are requested by ElringKlinger with an order, deadline and quantity. Where not initiated by ElringKlinger, in cases 4. to 7., the supplier is obliged to advise ElringKlinger of the changes. The extent of the test and the required initial sample inspection report must be agreed with ElringKlinger in advance. If ElringKlinger does not require samples to be submitted, this does not release the supplier from carrying out an initial sample procedure in accordance with this guideline.

Initial Sampling

Depending on the progress in development process, ElringKlinger will order samples according to VDA or AIAG (depending upon on ElringKlinger's customer).

Serial initial samples

Initial samples are products and materials which have been manufactured entirely with serial production equipment under serial productions conditions and which are tested using series test/inspection equipment and found to be OK.

Deviations

Initial samples with deviations from specifications/drawings must be communicated to ElringKlinger in advance. Measurement/test results related to deviant characteristics must be documented in the measurement report and must be clearly assignable to the drawing/specification.

The last page of this guideline is to explain how to proceed with request for deviations.

Other samples according to VDA scheme

Model

A – Samples

B – Samples

C – Samples

D – Samples

Products and materials manufactured in compliance with development drawings, specifications and customer's requirements which have not been manufactured entirely under production conditions. Other samples in the sense of this guideline include the following products: principle samples, first out of tool FOT samples, prototypes, development samples, inspection samples, manually produced samples and preliminary samples.

The approval of other samples does not at the same time mean approval for volume production and is no reason not to provide an initial test sample report in accordance with this guideline.

Retention periods

The supplier must define and maintain retention periods for documents, records and reference samples according to ElringKlinger Supplier Manual. Minimum requirements must be met.

These regulations do not replace legal requirements.

Sample submission and ElringKlinger decision of approval for production shipment authorization

On receipt of initial sample and submission documents, ElringKlinger reviews documents and initial sample parts. Testing of initial sample parts is at the sole discretion of the company.

ElringKlinger documents the initial sample decision on the initial sample cover sheet, signs this and sends it to the supplier by e-mail. The following decisions are possible:

**a) Customer-ready/Ready for series production,
Approval (fully approved)**

This means that all requirements are met without any restriction. Approval is issued for full production shipment authorization. This does not release the supplier from being responsible for the quality of the products.

**b) Not customer-ready / Not ready for series production. New PPA procedure required,
Approved with conditions, re-sampling required (approved with constraints)**

This means that requirements have not been met in full. Deliveries of the product can be made for a limited period of time or quantity in consultation with ElringKlinger. The supplier is required to specify and implement, with evidence, corrective actions within an agreed period of time. A re-approval of the sample procedure must be made before the end of the specified restriction.

**c) Not customer-ready / Not ready for series production,
Not approved (rejected)**

This means that requirements are not fulfilled. Approval for volume production is not granted. New/subsequent testing is required. The supplier must specify and provide evidence of corrective measures before resubmitting samples.

Initial sampling checklist

Our purchasing department create the initial sampling order, here you get the needed information according which PPAP form you must submit initial samples. Production process approval (PPA) agreement must be done.

ElringKlinger standard PPAP requirements are:


Part Submission Warrant according VDA(for German customers)

Part Submission Warrant according AIAG Level 3 (for all other customers worldwide)

Documentation of VDA and AIAG scope are different at some points. ElringKlinger combine VDA and AIAG scope together and require one extended package of documentation. Just the cover sheet design is different according VDA or AIAG.

Part Submission Warrant according VDA

All yellow fields must be completed.

Cover sheet PPA report (VDA)					
Organization			Reason for report creation		
			Report on production process and product approval (PPA)		
			Report on other samples		
			Requalification		
			Trigger of PPA procedure		
			Sample presentation		
Customer (recipient)			New part		
			Changes to product		
			Changes to production process		
			Change to supply chain		
			Re-use > 12 months standstill		
			Updated PPA documentation		
Information about the organization		Information about samples		Information about the customer	
Report no. / Version		Delivery note number		Customer	
Supplier number		Delivery quantity		Order No.PPA samples	
Delivery location		Batch number		Unloading point	
Production location		Sample weight [kg]		Part Number	
Part Number		Hardware version		Name	
Name		Diagnosis status		Drawing no.	
Drawing no.		Software version		Index / Date	
Index / Date		Identification/DUNS		Special archiving requirements	
		Hardware approval		Software approval	
Confirmation of organization					
It is hereby confirmed that the PPA procedure was carried out in accordance with the agreements made in the PPA agreement and the specifications of VDA Volume 2.					
		The IMDS record was created under the MDS ID No.:			
Name		Remark			
Department					
Telephone					
E-Mail					
Date		Signature			
Customer decision					
Customer-ready/Ready for series production			Not customer-ready / Not ready for series production		
PPA procedure towards customer closed			New PPA procedure required		
Update of PPA documentation required					
Report number/version Customer					
Name		Remark			
Department					
Telephone					
E-Mail					
Date		Signature			

Part Submission Warrant according AIAG

All yellow fields must be completed. Items that are not applicable are entered with "n/a"



Part Submission Warrant

Part Name _____		Cust. Part Number _____	
Shown on Drawing No. _____		Org. Part Number _____	
Engineering Change Level _____			Dated _____
Additional Engineering Changes _____			Dated _____
Safety and/or Government Regulation <input type="checkbox"/> Yes <input type="checkbox"/> No		Purchase Order No. _____	Weight (kg) _____
Checking Aid No. _____		Checking Aid Engineering Change Level _____	Dated _____

ORGANIZATION MANUFACTURING INFORMATION _____ Organization Name & Supplier/Vendor Code _____ Street Address _____ City Region Postal Code Country	CUSTOMER SUBMITTAL INFORMATION _____ Customer Name/Division _____ Buyer/Buyer Code _____ Application
--	---

MATERIALS REPORTING
 Has customer-required Substances of Concern Information been reported? Yes No n/a
 Submitted by IMDS or other customer format: _____

Are polymeric parts identified with appropriate ISO marking codes? Yes No n/a

REASON FOR SUBMISSION (Check at least one)

<input type="checkbox"/> Initial Submission	<input type="checkbox"/> Change to Optional Construction or Material
<input type="checkbox"/> Engineering Change(s)	<input type="checkbox"/> 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 type="checkbox"/> Tooling Inactive > than 1 year	<input type="checkbox"/> Other - please specify below

REQUESTED SUBMISSION LEVEL (Check one)

Level 1 - Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to customer.
 Level 2 - Warrant with product samples and limited supporting data submitted to customer.
 Level 3 - Warrant with product samples and complete supporting data submitted to customer.
 Level 4 - Warrant and other requirements as defined by customer.
 Level 5 - Warrant with product samples and complete supporting data reviewed at organization's manufacturing location.

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)
 Mold / Cavity / Production Process _____

DECLARATION
 I hereby affirm that the samples represented by this warrant are representative of our parts which were made by a process that meets all Production Part Approval Process Manual 4th Edition Requirements. I further affirm that these samples were produced at the production rate of _____ / _____ hours.
 I also certify that documented evidence of such compliance is on file and available for review. I have noted any deviations from the declaration below.
 EXPLANATION/COMMENTS: _____

Is each Customer Tool properly tagged and numbered? Yes No n/a

Organization Authorized Signature _____ Date _____

Print Name _____ Phone No. _____ Fax No. _____

Title _____ E-mail _____

FOR CUSTOMER USE ONLY (IF APPLICABLE)

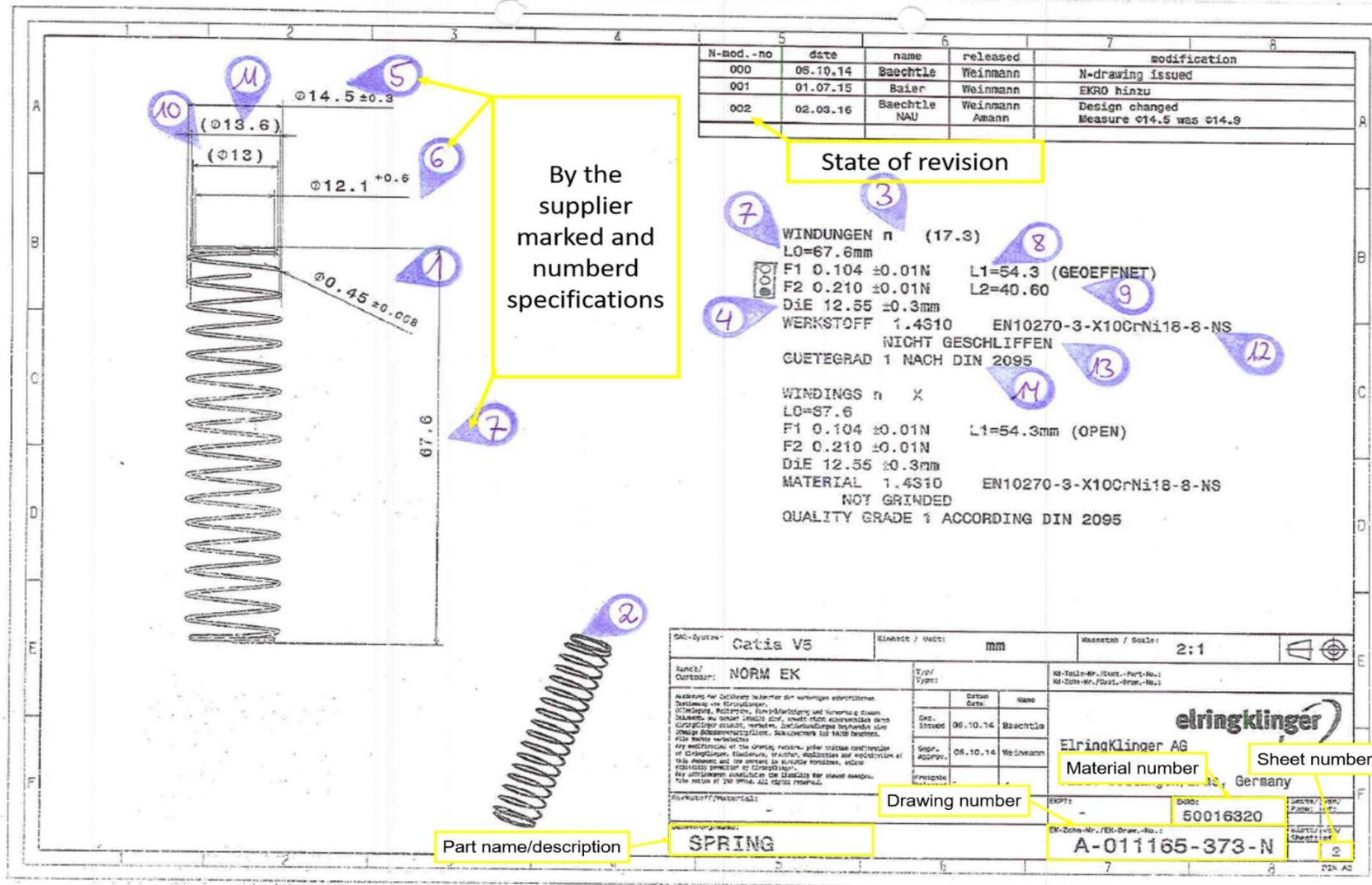
Part Warrant Disposition: Approved Rejected Other _____

Customer Signature _____ Date _____

Print Name _____ Customer Tracking Number (optional) _____

Drawing

The full drawing number in that case is "A-011165-373-N-002-002" (the first "002" is the sheet number and the second "002" is the state of revision). The single dimensions on the drawing must be numerated "ballooned" and must refer to the measurement report.



Dimensional Results, Product related deliverables, Functional tests

Within the APQP process it is necessary to present the measurement method to ElringKlinger. To make sure that the measurement is comparable to the ElringKlinger measurement method and to get the same measurement results.

Standard measurement scope:

- All existing molds/tools
- All cavities
- 5 parts per cavity


For rubber gaskets measure at least one cavity on all pips and holes.

No range results accepted, only single measurement results acceptable.

Single dimensions on the drawing must be numerated "ballooned" and must refer to the measurement report.

The here shown documents can be used to document test results which have been made with the material.

Material certificates / product specifications / order norms from ElringKlinger accepted and measurement results from the material required.

Product-related deliverables											
Information about the organization			Information about samples				Information about the customer				
Name of organization			Delivery note number					Customer			
Report no. / Version			Delivery quantity								
Delivery location			Batch number					Order no. PPA samples			
Production location			Sample weight [kg]					Unloading point			
Part Number			Hardware version					Part Number			
Name			Diagnosis status					Name			
Drawing number			Software version					Drawing number			
Version / Date			Identification/DUNS					Version / Date			
Part with special archiving requirement											
No.	Requirements/ Specification	Tolerance		Actual values of organization					Specification met		Remark
		-	+	Part 1	Part 2	Part 3	Part 4	Part 5	Yes	No	
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
Confirmation of organization											
Name				Remark							
Department											
Telephone											
E-Mail											
Date				Signature							

Process capability study, Machine capability study for all SC/CC

③

PCS: 125pcs.; all SC's and cavities: cp/cpk > 1,33

PCS: 125pcs.; all CC's and cavities: cp/cpk > 1,67

MCS: 50pcs.; all SC's and cavities: cm/cm_k > 1,67

MCS: 50pcs.; all CC's and cavities: cm/cm_k > 2,00

If the capability does not meet the requirements, an 100% inspection is necessary for this dimension.

Test equipment capability, Test equipment list, Gage, Gage Measurement Report

MSA has to be done for all measurement devices.

MSA procedures 1-3 are needed for all SC/CC's dimensions. Pictures from gages and fixtures necessary.

The following sites show how the measurement system and measuring equipment capability has to be tested. Additionally to these documents it is necessary to list the used measuring equipment in a separate document.

Procedure 1

Arbeitsblatt Messsystem - und Messmittelfähigkeitsuntersuchung			
work sheet measurement system- and measuring equipment capability study			
Verfahren 1			
type-1 study			
Teilebezeichnung: part description:		Messmittelname : measuring equipment name:	
Merkmal : characteristic:		Messmittel - Nr. : measuring equipment no.	
Spezifikation : specification:		Messmitteltyp : measuring equipment typ:	
Toleranz: tolerance:		Nennmass-Eichnormale: master/nominal value:	
		Datum : date:	
		Durchgeführt von : prepared by:	
Messwertnr. test result no.	Messwert test result	Messwertnr. test result no.	Messwert test result
1		26	
2		27	
3		28	
4		29	
5		30	
6		31	
7		32	
8		33	
9		34	
10		35	
11		36	
12		37	
13		38	
14		39	
15		40	
16		41	
17		42	
18		43	
19		44	
20		45	
21		46	
22		47	
23		48	
24		49	
25		50	
		Mittelwert: average:	
		Standardabweichung: standard deviation:	
		Fähigkeitsindex cg= capability index cg=	Ergebnis result
		Fähigkeitsindex cgk= capability index cgk=	
		cgk= $\frac{0,1 \times T - BI }{2 \times Sg}$	
		cg= $\frac{0,2 \times T}{4 \times Sg}$	
		in Ordnung/okay:	$\geq 1,33$
		nicht in Ordnung/not okay:	$< 1,33$

Procedure 2

Arbeitsblatt Messsystem - und Messmittelfähigkeitsuntersuchung												
work sheet measurement system- and measuring equipment capability study												
Verfahren 2												
type-2 study												
Tellebezeichnung:		Messmittelname:		Datum:								
part description:		measuring equipment name:		date:								
Merkmal:		Messmittel - Nr.:		Durchgeführt von:								
characteristic:		measuring equipment no.:		prepared by:								
Spezifikation:		Messmitteltyp:										
specification:		measuring equipment typ.:										
Toleranz:												
tolerance:												

Prüfer	A:				B:				C:			
operator	Name				Name				Name			
Teil	1.Versuch	2.Versuch	3.Versuch	Spannw.	1.Versuch	2.Versuch	3.Versuch	Spannw.	1.Versuch	2.Versuch	3.Versuch	Spannw.
part	test 1	test 2	test 3	range	test 1	test 2	test 3	range	test 1	test 2	test 3	range
1				0,00				0,00				0,00
2				0,00				0,00				0,00
3				0,00				0,00				0,00
4				0,00				0,00				0,00
5				0,00				0,00				0,00
6				0,00				0,00				0,00
7				0,00				0,00				0,00
8				0,00				0,00				0,00
9				0,00				0,00				0,00
10				0,00				0,00				0,00
Summe/sum	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Spannweite Mittelwert A: Range average A:	0	Spannweite Mittelwert B: Range average B:	0	Spannweite Mittelwert C: Range average C:	0
Summe sum	0	Summe sum	0	Summe sum	0,00
Mittelwert A average A:	0	Mittelwert B average B:	0	Mittelwert C average C:	0

Messfehleranalyse / measuring fault analyse:	R = 0
1. Wiederholbarkeit = $K1 \cdot R = 0$	Mittelwert x Diff. max-min = 0
1. Repeatability = $K1 \cdot R =$	average x Diff. max-min =
Hierbei gilt $K1 = 0,8862$ bei 2 Messversuchen und $K1 = 0,5908$ bei 3 Messversuchen. Hereby to apply $K1 = 0,8862$ by 2 measuring cycles and $K1 = 0,5908$ by 3 measuring cycles.	
% Wiederholbarkeit = $\frac{100 \cdot \text{Wiederholbarkeit}}{6\text{Sigma Prozess oder Toleranz}}$	
% Repeatability = $\frac{100 \cdot \text{repeatability}}{6\text{Sigma process or tolerance}}$	
2. Nachvollziehbarkeit = $K2 \cdot \text{Diff.} = 0$	
2. Reproducibility = $K2 \cdot \text{Diff.} =$	
Hierbei gilt $K2 = 0,7071$ bei 2 Prüfer und $K2 = 0,5231$ bei 3 Prüfer. Hereby to apply $K2 = 0,7071$ by 2 operators and $K2 = 0,5231$ by 3 operators.	
x Diff. Ist die Differenz zwischen dem größten und dem kleinsten x- Wert. x diff. is the differenz between the largest and the smallest x-value.	
% Nachvollziehbarkeit = $\frac{100 \cdot \text{Nachvollziehbarkeit}}{6\text{Sigma Prozess oder Toleranz}}$	
% Reproducibility = $\frac{100 \cdot \text{reproducibility}}{6\text{Sigma process or tolerance}}$	
3. Wiederholpräzision Wurzel aus $(\text{Wiederholbarkeit})^2 + (\text{Nachvollziehbarkeit})^2 = 0$	
3. total variation = $\text{root of } (\text{repeatability})^2 + (\text{reproducibility})^2 =$	
% Gesamtstreuung = $\frac{100 \cdot \text{Gesamtstreuung}}{6\text{Sigma Prozess oder Toleranz}}$	
% total variation = $\frac{100 \cdot \text{total variation}}{6\text{Sigma process or tolerance}}$	
4. Streuung von Teil zu Teil = $K3 \cdot R_p = 0$	
4. variation part to part= $K3=0,3146$ bei 10 Teilen on 10 parts	
5. Gesamtstreuung = Wurzel aus $(\text{Wiederholpräzision})^2 + (\text{Streuung von Teil zu Teil})^2 = 0$	
5. total variation = $\text{radical from } (\text{repeat precision})^2 + (\text{variation from part to part})^2 =$	

Abnahmekriterien allgemeine Richtlinien / acceptable specification:	
Gesamtstreuung des Messmittels/Total variation of measuring equipment	
0 - 10 % In Ordnung / okay	
10 - 30% Grenzlage / limit position für bestimmte Anwendungen zulässig / may be acceptable for some applications	
Über 30 % Nicht in Ordnung / not okay	
Bemerkung / remark:	

Procedure 2

Calculation of equipment variation caused by customer requirement GM.

Arbeitsblatt Meßsystem - und Meßmittelfähigkeitsuntersuchung
 work sheet measurement system- and measuring equipment capability study

Verfahren 2
 type-2 study

Tellebezeichnung: Meßmittelname: Datum:
 part description: measuring equipment name: date:
 Merkmal: Meßmittel - Nr.: Durchgeführt von:
 characteristic: measuring equipment no. prepared by:
 Spezifikation: Meßmitteltyp:
 specification: measuring equipment typ:
 Toleranz: tolerance:

Prüfer operator	A: Name <input type="text"/>				B: Name <input type="text"/>				C: Name <input type="text"/>			
Teil part	1.Versuch test 1	2.Versuch test 2	3.Versuch test 3	Spannw. range	1.Versuch test 1	2.Versuch test 2	3.Versuch test 3	Spannw. range	1.Versuch test 1	2.Versuch test 2	3.Versuch test 3	Spannw. range
1				0,00				0,00				0,00
2				0,00				0,00				0,00
3				0,00				0,00				0,00
4				0,00				0,00				0,00
5				0,00				0,00				0,00
6				0,00				0,00				0,00
7				0,00				0,00				0,00
8				0,00				0,00				0,00
9				0,00				0,00				0,00
10				0,00				0,00				0,00
Summe/sum	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Spannweite Mittelwert A: Range average A:	0	Spannweite Mittelwert B: Range average B:	0	Spannweite Mittelwert C: Range average C:	0
Summe sum	0	Summe sum	0	Summe sum	0,00
Mittelwert A average A	0	Mittelwert B average B	0	Mittelwert C average C	0

R = 0

Mittelwert x Diff. max-min = 0
 average x Diff. max-min =

Meßfehleranalyse / measuring fault analyse:

1. Wiederholbarkeit = $K1 \cdot R = 0$
 1. Repeatability = $K1 \cdot R =$
 Hierbei gilt $K1 = 0,8862$ bei 2 Meßversuchen und $K1 = 0,5908$ bei 3 Meßversuchen .
 Hereby to apply $K1 = 0,8862$ by 2 measuring cycles and $K1 = 0,5908$ by 3 measuring cycles.

% Wiederholbarkeit = $\frac{100 \cdot \text{Wiederholbarkeit} / \text{repeatability}}{6\text{Sigma Prozess oder Toleranz} / 6\text{Sigma process or tolerance}}$
 % Repeatability

2. Nachvollziehbarkeit = $K2 \cdot \text{Diff.} = 0$
 2. Reproducibility = $K2 \cdot \text{Diff.} =$

Hierbei gilt $K2 = 0,7071$ bei 2 Prüfer und $K2 = 0,5231$ bei 3 Prüfer.
 Hereby to apply $K2 = 0,7071$ by 2 operators and $K2 = 0,5231$ by 3 operators.

x Diff. Ist die Differenz zwischen dem größten und dem kleinsten x- Wert .
 x diff. is the differenz between the largest and the smallest x-value.

% Nachvollziehbarkeit = $\frac{100 \cdot \text{Nachvollziehbarkeit} / \text{reproducibility}}{6\text{Sigma Prozess oder Toleranz} / 6\text{Sigma process or tolerance}}$
 % Reproducibility

3. Gesamtstreuung = $\text{Wurzel aus } (\text{Wiederholbarkeit})^2 + (\text{Nachvollziehbarkeit})^2 = 0$
 3. total variation = $\text{root of } (\text{repeatability})^2 + (\text{reproducibility})^2 =$

% Gesamtstreuung = $\frac{100 \cdot \text{Gesamtstreuung} / \text{total variation}}{6\text{Sigma Prozess oder Toleranz} / 6\text{Sigma process or tolerance}}$
 % total variation =

Meßmitteltreuung In Prozent der Prozessstreuung
 Equipment variation in percent of process variation

Wiederholbarkeit
Repeatability

Nachvollziehbarkeit
Reproducibility

Gesamtstreuung
Total variation

Abnahmekriterien allgemeine Richtlinien / acceptable specification:
 Gesamtstreuung des Meßmittels/Total variation of measuring equipment

0 - 10 % In Ordnung / okay
 10 - 30% Grenzlage / limit position für bestimmte Anwendungen zulässig / may be acceptable for some applications
 über/over 30 % Nicht in Ordnung / not okay

Bemerkung / remark:

Berechnung der Meßmitteltreuung aufgrund Kundenforderung GM.
 Calculation of equipment variation caused by customer requirement GM.

Procedure 3

Arbeitsblatt Meßsystem - und Meßmittelfähigkeitsuntersuchung

work sheet measurement system- and measuring equipment capability study

Verfahren 3

type-3 study

Teilebezeichnung:
 part description:
 Merkmal :
 characteristic:
 Spezifikation :
 specification:
 Toleranz:
 tolerance:

Messmittelname :
 measuring equipment name: balance
 Messmittel - Nr. :
 measuring equipment no.
 Messmitteltyp :
 measuring equipment typ:
 Nennmass-Eichnormale:
 master/nominal value:

Datum :
 date:
 Durchgeführt von :
 prepared by:

Teile-Nr. part no.	Meßzyklus 1 cycle 1	Meßzyklus 2 cycle 2	Range "R"
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

Berechnung und Auswertung
 calculation and evaluation

Wiederholbarkeit EV:
 Repeatability EV:
 % EV:

R & R= EV = K1 x Rquer
 %R & R= %EV= $\frac{EV}{RF} \times 100\%$

- 0-10% **In Ordnung (für neue Messmittel)**
 okay (for new measuring equipment)
- 10-30% **Grenzlage**(für vorhandene Messmittel)
 limit position (for existing measuring equipment)
- über/over 30% **Nicht in Ordnung**
 not okay
 not okay

Procedure
 Additive inspection for gages

Arbeitsblatt Messsystem - und Messmittelfähigkeitsuntersuchung
 work sheet measurement system- and measuring equipment capability study

Additive Prüfung mit Lehren (attributiv inspection for gages)

Teile-Nr (EK-part-number)
 Lehren-Nr (gage-number)

Sollwert Passloch Sollwert Passstift Name: Name:
 nominal value bolt hole nominal value bolt name: name:

Teile-Nr. EK-part-no.	Gemessener Merkmalswert measured values	Prüfentscheid aus Messung results	Versuch trial 1	Versuch trial 2	Versuch trial 1	Versuch trial 2	Bewertung validation
1							
2							
3							
4							
5							
6							
7							
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Summe der Nichtübereinstimmungen
 total of no accordsances

Ergebnis: Prüfmittel geeignet
 result: The measuring equipment is suitable

Wenn das Prüfmittel nicht geeignet für diesen Prozess ist, müssen folgende Maßnahmen eingeleitet werden.
 if the measuring equipment is unsuitable for this process, the following action is needed

- Einweisung (Schulung) der Prüfer (instruction for the worker)
- Richtige Handhabung (correct handling)
- Konstruktionsänderung (design update)
- alternatives Prüfmittel (Prüfmittelnr./Bezeichnung: _____ / _____) (alternative device)
- Andere Maßnahmen (other action):

Datum/Unterschrift
 date/signature

Technical cleanliness, Corrosion test

A cleanliness test has to be made if it is noted on the drawing or required by ElringKlinger.

This step in the initial sampling documentation has to be carried out for new parts or changes in the manufacturing process. The parts to be tested must be removed from the serial process and must be submitted as a standard production part (not "pre-conditioned").

Therefore it is necessary to generate a fading curve and a blank value for the products.

The standards given here have to comply with the performed tests. The institution which carries out the experiments inspections has to be certificated.

The cleanliness report must also contain an detailed description of the test procedure for example extraction method, analysis method, filter type, flushing pressure, test medium, cleaning mechanism, time, standard references, and so on.

Requalification

The extent of requalification of deliveries to ElringKlinger corresponds to the repetition of initial release in terms of dimension, function, cleanliness, reliability and material. Requalification is to be carried out yearly and the proceeded test shall be confirmed to ElringKlinger. Part families can be brought together as agreed with ElringKlinger. Results must be made accessible to ElringKlinger on request.

Product-specific inspections

With regard to product commodity, there are different expectations which have to be met. The list below shows a few general instructions for the different commodities. Regarding to the product there can be more requests than listed in this table. If there are any questions or problems with the instructions, please feel free to contact the corresponding Supplier Quality Engineer.

For all commodities

If requested, DVP documentation has to be included into the initial sampling documentation.

Plastic parts

For welded assemblies pictures of the destroyed welding area have to be included with the initial sampling documentations.

Electrical parts

Pictures from the crimp contact (cross section) have to be included into the initial sampling documentations.

Elastomer and rubber parts

Additional requirements:

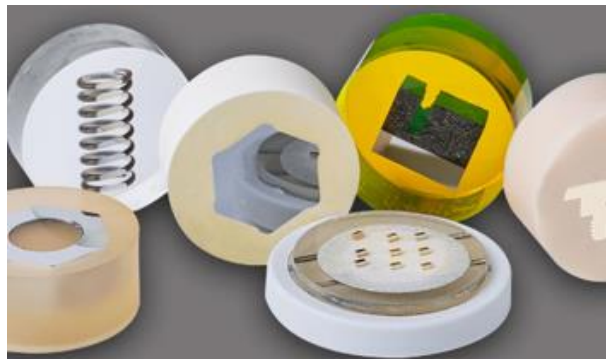
1. *Hardness checking*
 - IRHD m [points]
 - SHORE A, if permitted by gasket geometry [DIN EN ISO 868]
2. *Density [g/cm³]*
3. *Compression set [%]*

These additional requirements must also be met for annual requalification.

Every single release criteria must be performed and submitted within the initial sample documentation in order to obtain initial sample approval. Test specimens and their results are to be marked separately, they are to be sent together with the initial sample test report and initial sample components.

1. Hardness

The required test must be carried out on the finished part. In order to obtain stable measurement results, the component to be tested must be embedded in resin.



Values to be determined:
IRHD m [points]
SHORE A [DIN EN ISO 868]

2. Density test

Density is a substance constant that is independent of the dimensions of the test specimen.

Density may e.g. determined e.g. with the help of "Archimedean Principle".

First, the specimen is weighed in air and finally in ethanol or ethyl alcohol (water is preferred for reasons of simplicity, but due to its high surface tension it more easily leads to measurement errors).

Special density scales then use buoyancy to automatically calculate the density of the material.

No air bubbles must adhere to the test specimen or there must not be any bubbles or cavities in the test specimen as these would affect buoyancy when weighing in water.

Density must be determined in $[g/cm^3]$.

3. Compression set [%] based on ISO 815

Compression set is intended to provide information on the extent to which elastic properties of elastomers are retained after long-term constant deformation at a given temperature.

It is defined as the deformation of a test specimen at a certain time after tension release in relation to the deformation under tension.

Test specimens in injection molding series tool

Three buttons or test specimens are incorporated in the injection mold. This is necessary so that parameter determination can be better validated when the tool is put into operation.

These test specimens cause the worst compression set, i.e. the gasket itself is better than the test specimen.

Tool design

In the design of the tool, three test specimens (type B) with a diameter of $\varnothing 13 \pm 0.5 \text{ mm}$ * $2 \pm 0.05 \text{ mm}$ deep are to be incorporated in the tool. The position should be close to the gasket contour. However, it should have sufficient distance so that during series production, no rubber overflow into this body is possible.



Creation of test specimens

The injection molding machine must be in series production conditions together with the tool.

The employee opens the empty tool and places a piece of raw material over the test specimens as required and closes the mold in automatic mode. The test specimens are removed from the tool after series cycle time.

Determination of compression set

Determination of compression set shall be carried out in accordance with DIN ISO 815-1, test specimen type B.

Measuring principle

To determine the compression set, initial height h_0 is measured on a test specimen, then statically deformed by 25% (h_1) and stored at a specified temperature.

After a specified test period, the test specimen is removed from the mold in hot condition and after a cooling time of 30 minutes, final thickness h_2 is determined (hot removal). Alternatively, the test specimen can be removed after cooling to room temperature and again measured after 30 minutes (cold removal).

Compression set is calculated by following formula:

$$\text{Compression set} = \frac{h_0 - h_2}{h_0 - h_1} \quad [\%]$$

Measurements are carried out on test specimens.

Alternatively, after consultation with ElringKlinger, measurements can also be carried out on gaskets, whereby the values determined here can scatter very widely and may deviate significantly from measurements on standard test specimens.

Detailed description of test procedures with test parameters, definitions of terms as well as test specimen dimensions can be found in the corresponding test standards, whereby the special features of the respective standards must be strictly observed (DIN 53517, DBL 5555.3, P-VW 3307).

Since the result depends very much on the selected test method, it must always be specified in addition to the result. In addition, test temperature and test duration must always be recorded.

IMDS

The picture below shows the IMDS mask, where suppliers have to fill out a part of the relevant product information. Please refer to the picture below for a complete and correct completed IMDS Report.

Details

Transfer Information

Company ElringKlinger AG [280]
Organisation unit -
Recip. Status not yet browsed

Supplier Code ? **Number of the supplier given by the ElringKlinger AG**

Name ?

Part/Item No. ? **Part number – defined by the ElringKlinger AG**

Transmission/Check Date
Forwarding allowed

Drawing

Drawing No.

Drawing dated x ?

Drawing Change Level ?

Purchase Order

Purchase Order No.

Bill of Delivery No.

Report

Report No.

Date of Report ?

example

MDS Report

Substances of assemblies and materials

This report is for internal Automotive industry use only. Distribution to non-Automotive clients is a violation of the Terms of Use, and is not permitted unless a written permission was given by DXC Technology. Parsing is not allowed.

1. Company and Product Name

1.1 Supplier Data

Name [ID]:

DUNS Number:

Street/Postal Code:

Nat./ZipCode/City:

Supplier Code:

Contact Person:

- Phone:

- Fax No.:

- E-Mail Address:

Number of the
EtringKlinger AG

Description of the part in
Engl./German according
to the drawing

The IMDS has to contain
the number of the
drawing, the current
status and the date of
the latest change

Product Identification

Part/Item No.:

Description:

IMDS ID / version:

Node ID:

MDS Status (Change

Date):

Recipient Company (Org

Unit) [ID]:

Recipient Status (Change

Date):

Accepted by:

50025285

BOLT BUSHING SYSTEM
M6X22

Projekt ID-38857

No

Internally released

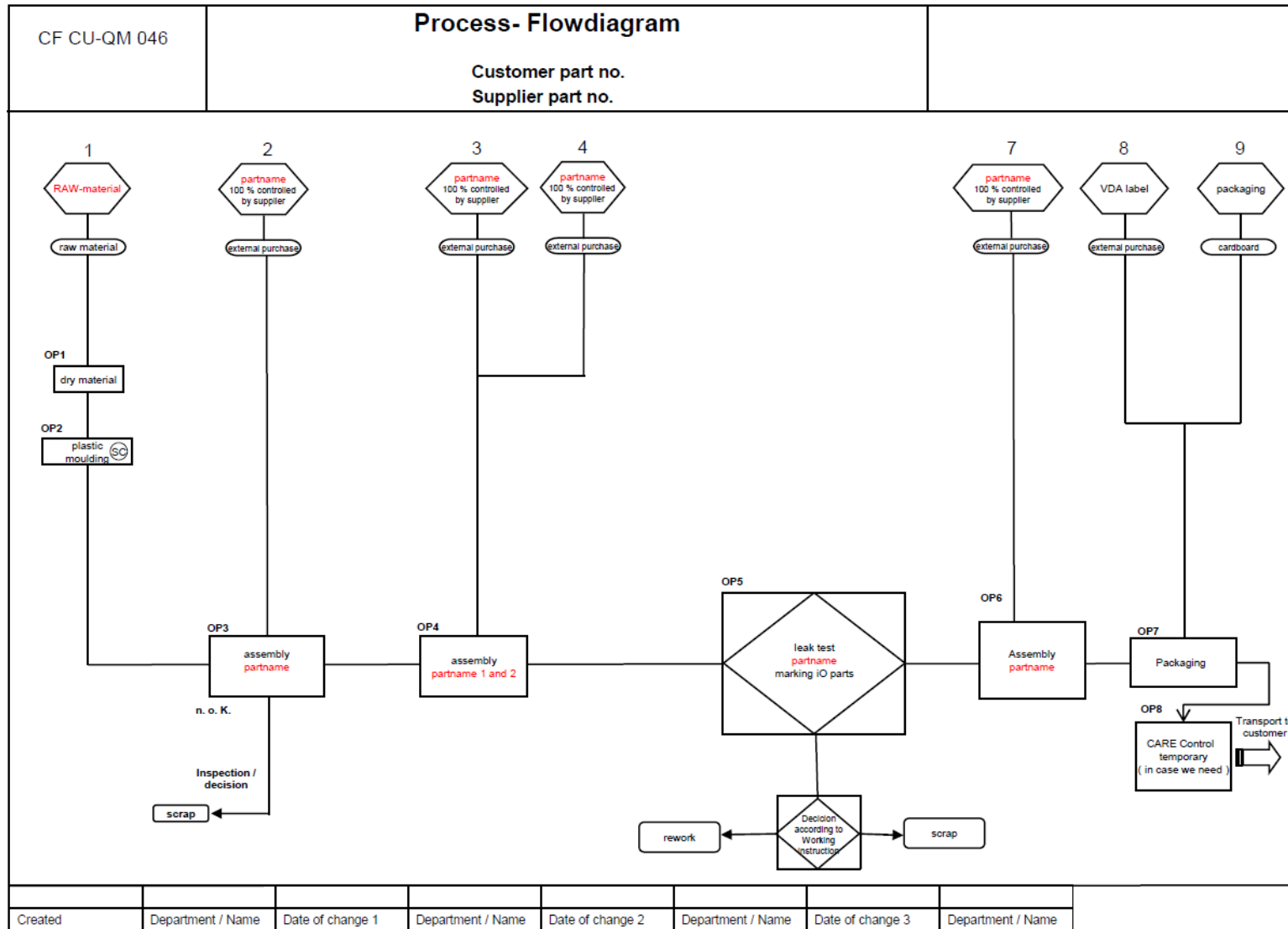
(09/14/2018)

EtringKlinger AG [280]

accepted (09/18/2018)

Process Flow

This flow chart must contain all in-house and external (if relevant) process steps according to the Control Plan process steps.



Control Plan according to IATF 16949

This Control Plan must contain all in-house and external (if required) process steps according to the process flow chart.

The control plan includes: Standard serial controls, SC/CC's serial controls, requalification, cleanliness testing, C.A.R.E. control and so on.

An 100% control also includes part marking (if required).

Control plan												elringklinger					
Control plan type:					Key Contact / Phone					Date (Orig.)				Date (Rev.)			
Control Plan Number					Core Team					Customer Engineering Approval/Date (if Req'd)							
Part Number/Latest Change Level:					Supplier/Plant Approval/Date					Customer Quality Approval Date (if Req'd)							
Part Name/Description					Other Approval/Date (if Req'd)					Other Approval/Date (if Req'd)							
Supplier/Plant					Supplier Code					Other Approval/Date (if Req'd)							
					---					Other Approval/Date (if Req'd)							
				Characteristics				Methods									
Part/	Process Name/	Machine, Device,		No.	Product	Process	Special	Product/Process	Evaluation	Sample				Reaction Plan			
Process	Operation Description	Jig, Tools					Char.	Specification/	Measurement	Size	Freq.	Control Method					
Number			For Mtg.					Class	Tolerance	Technique							
	Product / Dispatch audit	measurement device	1	all positions of drawing	-	-	Drawing:	measurement device	min. 1 of every prod. Family	1/year	Audit report (initial sample documentation)	Depending of the problem					
	(Layout inspection)						Form ZF QM 43 - D (Requalification / Process Audit / dispatch audit)										

Control of new launches (start of production, SOP)

C.A.R.E. control (Customer Acceptance Review Evaluation) serves the customer to protect himself from his own mistakes. However, it is not a problem-solving method, this must be carried out intensively in parallel by the customer.

Most used keywords: C.A.R.E. control, Early Production Containment (EPC), Safe Launch Plan

The supplier shall agree upon a Safe Launch Plan like C.A.R.E. control for a minimum of three deliveries after approval of the PPAP. C.A.R.E. control is a control which is carried out on the finished product, usually immediately before shipping. The examiners are thoroughly trained on the fault characteristics, so that all faulty products are sorted out. If new errors occur during the check, they are added to the error list and the quality managers are informed.

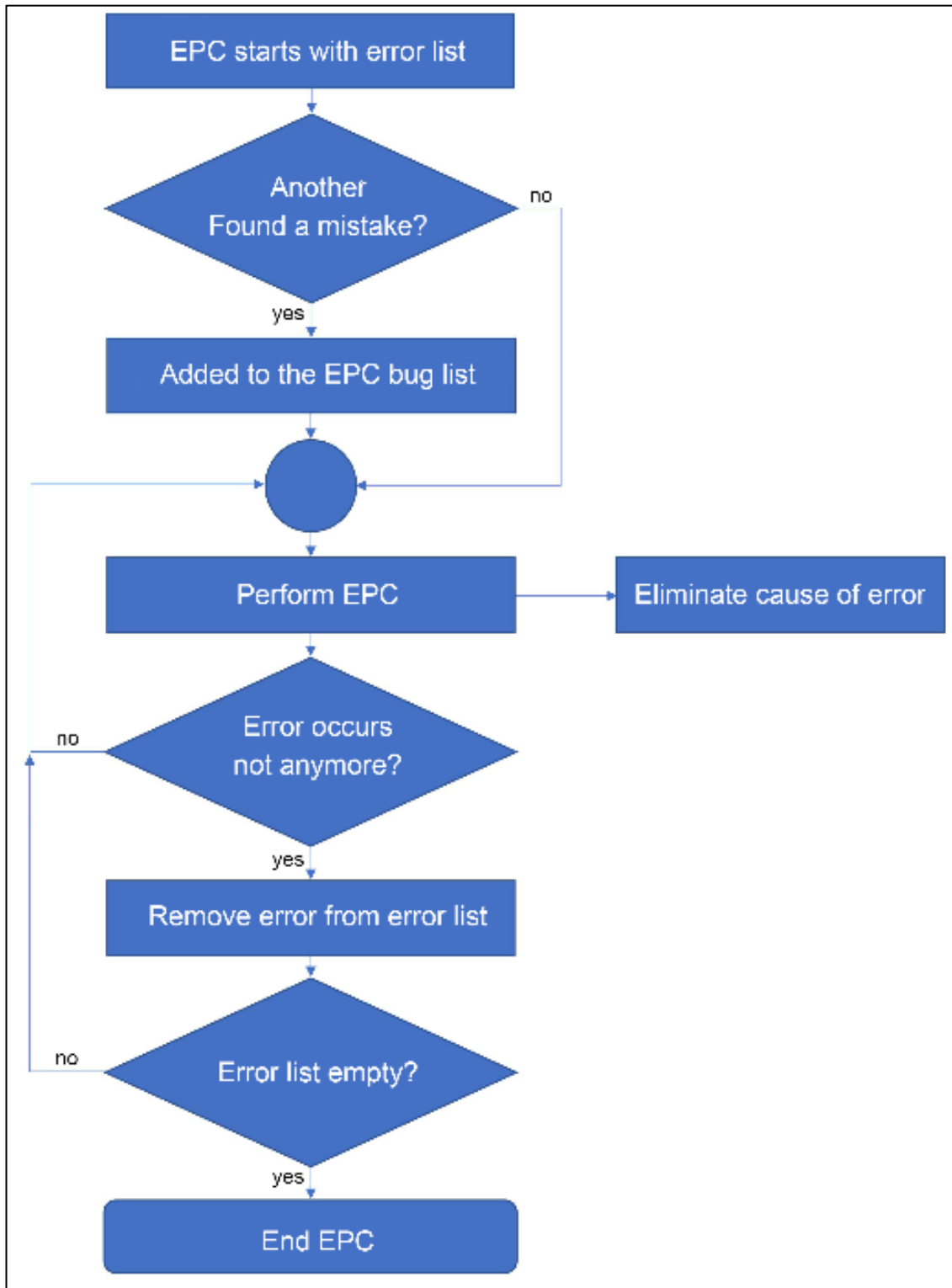
During a new start, at least 3 production orders (with representative quantities) are to be checked 100% visually at a separate workstation. Test results, error type and quantity shall be documented in the appropriate form sheets.

If an error no longer occurs, it will continue to be checked up to an agreed time to make sure that this error has really been eliminated. If the error no longer occurs after the expiration of this period, this error is removed from the error collection card.

If there are no more errors and the error collection card is empty, then the C.A.R.E. control is also considered as finished.


The C.A.R.E. control should always be done away from final inspection, etc., so that it does not lead to collusion of the inspectors, e.g. "Xy I do not have to check, since this was already checked in the final inspection" or "Xy I do not have to check because this is controlled in the C.A.R.E. control " comes.

Example of the process flow from EPC (Early Production Containment)



FMEA

It is the minimum requirement for initial sampling to send the FMEA confirmation to ElringKlinger as a proof of creation.

Confirmation existing of the FMEA						
Information about the organization			Information about the customer			
Name of organization		Supplier no.	Customer		Part number	
		Delivery location			Part name	
		Production location			Drawing no.	
Hereby we confirm the creation of an for the above mentioned article						
<p>Priority High (H): High review and action priority. The team must either define an appropriate action to improve the occurrence and/or detection or justify and document why the actions taken are sufficient.</p> <p>Medium Priority (M): Medium review and action priority The team should identify appropriate actions to improve the occurrence and/or detection or, at the discretion of the organization, justify and document why the actions taken are sufficient.</p> <p>Priority Low (L): Low review and action priority. The team can identify actions to improve prevention or detection activities.</p>						
Quantity high priority (H)						
Quantity middle priority (M)						
Quantity low priority (L)						
No.	Action	Prio	Responsible	Date		
1						
2						
3						
4						
5						
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7						
8						
9						
10						
Remarks to the FMEA						
Confirmation of organization						
Name		Remark				
Department						
Telephone						
E-Mail						
Date		Signature				

Tool

Documentation of the tool has to contain pictures of the closed and as well as of the open tool (it has to be visible how many cavities the tool contains) and .stp CAD data. Furthermore, this documentation has to contain dimensions and weight of the tool. In addition to that there must be a property labeling on the tool.

Property labeling has to contain the following information:



Description of product :	XXXXXXXXXXXXXXXXXXXX
Description of customer :	XXXXXXXXXXXXXXXXXXXX
EK-Part-No. :	XXXXXXXXXXXXXXXXXXXX
Project-ID :	XXXXXX
Tool-No. :	XX XXX XXX

The information for the label are specified in the drawing from ElringKlinger.

Description of product:

See name of part at drawing (Blue frame).

Description of customer:

Customer specific number, ElringKlinger AG will not take influence on this number.

EK-Part-No:

Current ElringKlinger part number.

Project-ID:

Is the 6 digit number on the drawing (Red frame).

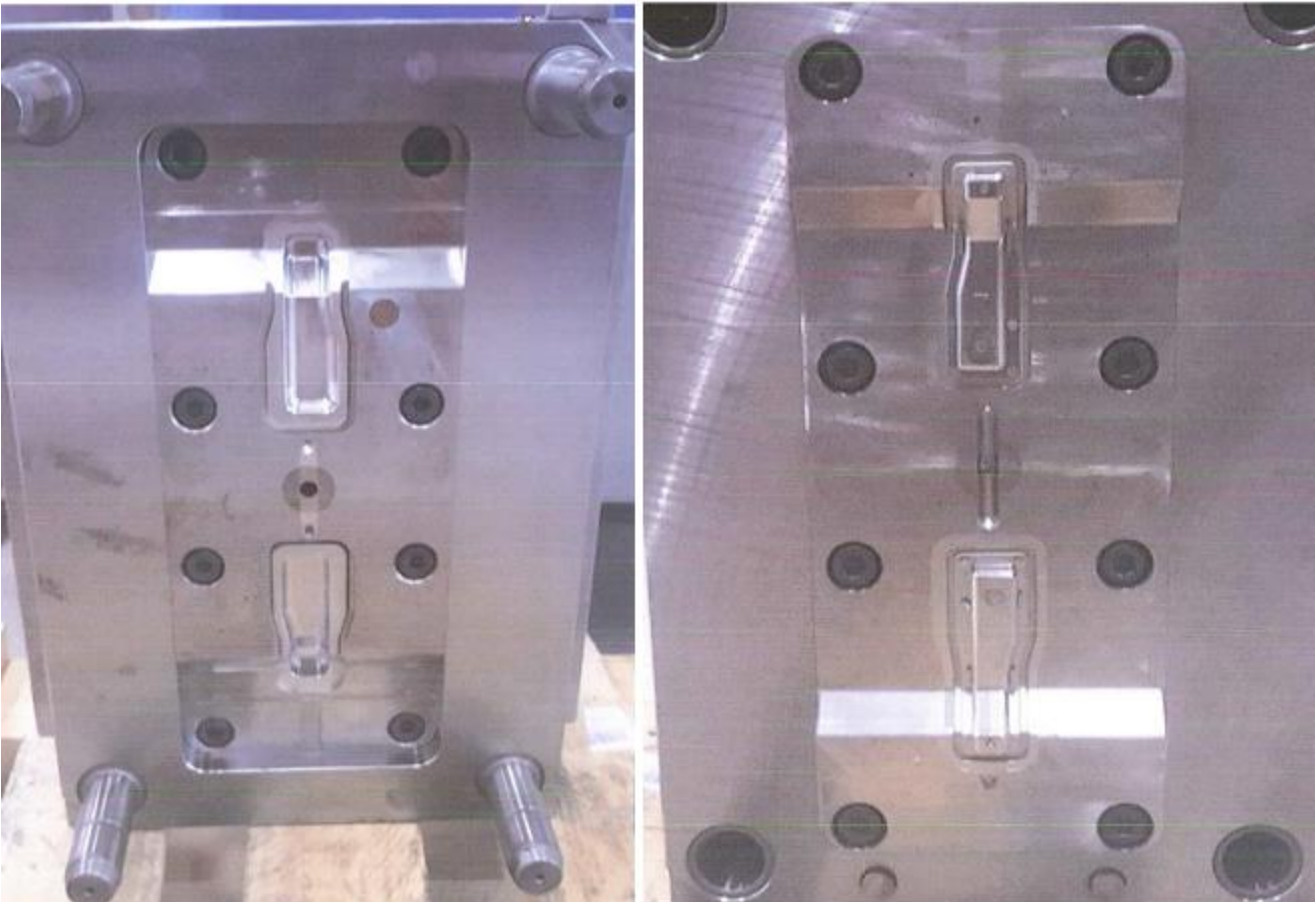
For older project's without an A-XXX (without Project ID) drawing please use the old drawing number instead of the project-ID

<small>Aenderung der Zeichnung beduerfen der vorherigen schriftlichen Zustimmung von ElringKlinger. Offenlegung, Weitergabe, Vervielfaeltigung und Verwertung dieses Dokuments und dessen Inhalts sind, soweit nicht ausdruerklich durch ElringKlinger erlaubt, verboten. Zuwiderhandlungen begruenden eine etwaige Schadensersatzpflicht. Schutzvermerk ISO 16016 beachten. Alle Rechte vorbehalten Any modification of the drawing requires prior written confirmation of ElringKlinger. Disclosure, transfer, duplication and exploitation of this document and its content is strictly forbidden, unless explicitly permitted by ElringKlinger. Any infringement constitutes the liability for caused damages. Take notice of ISO 16016. All rights reserved.</small>		Datum Date	Name	 ElringKlinger AG Max-Eyth-Strasse 2 72581 Dettingen/Erms, Germany
	Gez. issued			
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	Freigabe Released			
Werkstoff/Material:	EKPT:		EKRO:	Seite/ von/ Page: of:
Benennung/Name: Bauteilzeichnung	EK-Zohn-Nr./EK-Draw.-No.:		A- -	Blatt/ von/ Sheet: of:
13	14	15	16	DIN A1

Example pictures of the closed tool with property labeling



Example pictures of opened two cavity tool.



Tooling overview



Information about the organization				Information about the customer			
Name of organization		Supplier number		Customer		Part number	
		Delivery location				Part name	
		Tool location				Drawing number	
Tool data	ElringKlinger tool number						
	ElringKlinger tool order number						
	Tool lifetime [shot quantity]						
	Used material for the tool						
	Tool coated or hardened						
	Number of cavities						
	Construction year						
	Tool manufacturer						
	Dimension of the tool		Width				[mm]
			Height				[mm]
Depth						[mm]	
Weight						[kg]	
Machine data	Machine type						
	Machine manufacturer						
	Machine number / Inventory number						
	Machine size						
	Clamping force						[kN]
Further information acc. the tool or machine							
Tooling picture							
Front view				Inner view tool opened			
Property tool tag				Picture from off tool part			
Further pictures e.g. Cavity marking, Date clock, Part marking, ...							
Further comments							
Confirmation of organization							
Name				Remark			
Department							
Telephone							
E-Mail							
Date				Signature			

Process performance test (Run@rate)

The Process performance test (Run@Rate) require that the supplier has to produce between the production enough parts as the amount of parts which ElringKlinger would need to produce two days in the peak volume a year.

Calculation example:

ElringKlinger demand 150,000 parts/year, ElringKlinger calculates 48 weeks/year with 5 days per week.

- $150,000 / 48$ = 3125 parts / week
- $3125 / 5$ = 625 parts / day
- 2 day production = 1250 parts for the process performance test needed (R@R)

The supplier must make this sample production and the internal audit (according to VDA 6.3) before sending the initial sampling records to ElringKlinger.

This document is necessary to document the results of the internal audit which the supplier has to carry out.

Suppliers who fall under the AIAG CQI standard (Continuous Quality Improvement) must send the last internal audit within this initial sample report.

Process performance test (Run@Rate)



Information about the organization				Information about the customer			
Name of organization		Supplier no.		Customer		Part number	
		Delivery location				Part name	
		Prod. location				Drawing no.	

Audit type

Participants supplier / audited organisation:	Department*	Participants customers / auditor:	Lead-Auditor	Co-Auditor	Department*

*X stands for distribution of the audit results. Send the result also to CU-4Q8 and enter ZLIEFQ

Process audit result (VDA 6.3):	Goal >90%
P2 Project management	<input type="text"/>
P3 Planning the product and process development	<input type="text"/>
P4 Carrying out the product and process development	<input type="text"/>
P5 Supplier management	<input type="text"/>
P6 Process analysis / production	<input type="text"/>
P7 Customer support / customer satisfaction / service	<input type="text"/>
P8 Sustainability issues	<input type="text"/>
P9 Questions regarding information security and data privacy	<input type="text"/>

CQI audit result:	Passed
AIAG CQI 9 (heat treatment)*	<input type="text"/>
AIAG CQI 11 (metal coating)*	<input type="text"/>
AIAG CQI 12 (surface coating)*	<input type="text"/>
AIAG CQI 15 (welding operation)*	<input type="text"/>
AIAG CQI 17 (soldering process)*	<input type="text"/>
AIAG CQI 23 (plastic moulding)*	<input type="text"/>
AIAG CQI 27 (casting)*	<input type="text"/>

*add documents as attachment

Overall result A = 90 - 100% quality capable
 B = >=80 - <90%, conditionally quality capable
 C = 0 - <80% not quality capable

Repetition date:

Comments on deviations requested Yes Until:
 No


Remarks to the audit result:

Confirmation from the auditor


Name		Remark	
Department			
Telephone			
E-Mail			
Date		Signature	

Capacity Analysis per part or part with more than one project

This document has to be used for initial sampling. There are no alternative documents accepted. ElingKlinger expects 5 working days per week and 48 working weeks per year under normal conditions. The capacity analysis can be made within the Process performance test (Run@Rate) sample production.

Capacity analysis																																																																															
This analysis should be accomplished for all key processes																																																																															
Information about the organization				Information about the customer																																																																											
Name of organization	Supplier no.			Customer	Part number																																																																										
	Delivery location				Part name																																																																										
	Production location				Current drawing no.																																																																										
Project-ID	If the part goes in more than one project number please fulfill the second page			You have to fill in only the yellow marked columns.																																																																											
Operating pattern and machine data:				<table border="1"> <thead> <tr> <th>Process 1</th> <th>Process 2</th> <th>Process 3</th> <th>Process 4</th> <th>Process 5</th> <th>Process 6</th> </tr> </thead> <tbody> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>				Process 1	Process 2	Process 3	Process 4	Process 5	Process 6																																																																		
Process 1	Process 2	Process 3	Process 4	Process 5	Process 6																																																																										
Process description (e.g. injection moulding, assembly, coating,...) Shifts/week (max. 15) Hours/shift Minutes/shift Planned downtime: lunch, breaks (min./shift) Total planned production time/shift (minutes) Total planned production time/week (minutes) Calculated (guaranteed) machine utilization with this product (%)				<table border="1"> <thead> <tr> <th>Process 1</th> <th>Process 2</th> <th>Process 3</th> <th>Process 4</th> <th>Process 5</th> <th>Process 6</th> </tr> </thead> <tbody> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>				Process 1	Process 2	Process 3	Process 4	Process 5	Process 6																																																																		
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Sample production run data:				<table border="1"> <thead> <tr> <th>Process 1</th> <th>Process 2</th> <th>Process 3</th> <th>Process 4</th> <th>Process 5</th> <th>Process 6</th> </tr> </thead> <tbody> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>				Process 1	Process 2	Process 3	Process 4	Process 5	Process 6																																																																		
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Department																																																																															
Telephone																																																																															
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Date				Signature																																																																											

The second page is additional necessary if the part goes in more than one project delivered to ElringKlinger.

Capacity analysis project								
Information about the organization				Information about the customer				
Name of organization				Customer			Part number	
							Part name	
							Current drawing no.	
No.	Project-ID	Yearly demand per project	Guaranteed machine utilization with this product (%)	Operating pattern and machine data: Process description (e.g. injection moulding, assembly, coating,...) Shifts/week (max. 15) Hours/shift Minutes/shift Planned downtime: lunch, breaks (min./shift) Total planned production time/shift (minutes) Total planned production time/week (minutes) Calculated (guaranteed) machine utilization with this product (%)			Capacity first project	Capacity summary
1	0	0	0%					
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
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15								
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17								
18								
19								
20								
Summary		0	0%	Sample production run data: Total minutes run Total breakdown time + time for minor setups and adjustments (minutes) Total number of parts made (good and bad) Total good parts (first time through only-do not include parts that were re-processed or reworked) Total bad parts Actual cycle time (sec./part) Production rate sample production (parts/8h)				
				Other planning data: Planned cycle for the tool (in seconds) Number of cavities / tracks (if not applicable insert "1") Cycle time per part Projected time per changeover (minutes) Projected changeovers per shift Projected downtime: changeover time/shift (minutes) Projected downtime: (breakdown time + time for minor setups and adjustments)/shift (min) Total projected planned downtime/week (min)				
				Calculation Equipment availability Performance efficiency Quality rate OEE				
				Capacity analysis Planned uptime (days/week) Planned rate of production (parts/minute) Theoretical production capacity per week Working weeks per year (max. 48) Yearly demand Weekly demand Weekly parts available for shipment Available capacity above / below weekly demand				0
								0
Capacity over / under of the needed quantity at the bottleneck process				0		Enough capacity		
				I confirm above mentioned capacity				
Name				Remark				
Department								
Telephone								
E-Mail								
Date				Signature				

Part history


Part history shows all changes of the product. All changes must be registered for example (drawing change, FMEA change, claim, tool change, process change, e.g.)



Part history									
Information about the organization					Information about the customer				
Name of organization	Supplier number				Customer	Part number			
	Delivery location					Part name			
	Production location								
	Part number								
No.	Description of change	Drawing number	Drawing level	App-lication			Production date	Approval initial sampling	Remark
				First use	Product change	Production process			
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
Confirmation of organization									
Name							Remark		
Department									
Telephone									
E-Mail							Signature		
Date									

Written self-assessment of serial production maturity of product and process

This assessment is a requirement by VDA and has to be provided from each supplier who delivers to ElringKlinger. Your remarks are necessary if you have yellow or red items.

Self-assessment product						
Name	Supplier number		Recipient location	ElringKlinger	Part Number	
	Delivery location				Part description	
	Production location				Drawing number	
	Part Number				Index / Date	
Part with special archiving requirement						
Category	Requirements met	Requirements not fully met	Requirements not met	Not applicable	Remark/actions + date (if not OK selected) (5)	
Dimension	Dimensionally OK no rework	Dimensionally OK with rework or uncritical values NOK	Dimensionally NOK			
Material	Series material acc. to specification	No series material or other processing customer acceptance granted	No series material specification not met/not verified.			
Function / EMC / ESD	Function fulfilled meets specification	Deviation from specification customer acceptance granted	Function NOK or function not verified specification not met			
Surface / structure color / graining	OK	Does not correspond to series status, customer acceptance granted	Does not correspond to series status customer acceptance not granted			
PPA status of supply chain	Customer-ready (requirements met or deviations accepted after risk analysis)	Customer-ready after risk assessment Updated PPA documentation required	Not customer-ready or not approved yet			
Assembly capability (at customer site)	Capable for assembly with no additional expenditure	Capable for assembly with additional expenditure customer acceptance granted	Not capable for assembly			
Self-assessment of organization			Entry incorrect, please check			
Confirmation of organization						
Name				Remark		
Department						
Telephone						
E-Mail						
Date				Signature		
Instruction how to fill in the form:						
(5)	Input mandatory, if other evaluation then "Requirements met"					

Self-assessment production process



Name	Supplier number		Recipient location	EringKlinger	Part Number	
	Delivery location				Part description	
	Production location				Drawing number	
	Part Number				Index / Date	

Part with special archiving requirement

Category	Requirements met	Requirements not fully met	Requirements not met	Not applicable	Remark/actions + date (if not OK selected) (5)
Production location	Production at production location approved by the organization (Production layout set up, linking between production equipment realized)	Production at production location not approved by the organization yet; No negative quality impacts expected in series production	Production not at production location; Negative quality impacts possible		
Tools	Series tool accepted	Series tool / small series tool available, optimization(s) still necessary, but no negative quality impacts expected in series production	Tool not ready for series production; negative quality impacts expected in series production		
Logistics *1	According to process sequence	Not according to process sequence but no negative quality impacts expected in series production	Negative quality impacts possible		
Special and agreed characteristics assured	Characteristics assured	Assurance not fully verified; additional measures installed; customer acceptance granted	Assurance not fully verified		
Test equipment	Completely available / accepted; capability verified	Only partially available / accepted; suitable substitute test equipment available	Not available / not accepted		
Agreed production quantity	All production facilities accepted (2)	At least one production unit accepted (2)	Production facilities not accepted (2)		
	Production quantity reached / verified	Production quantity permanently reachable with special measures	Production quantity not reachable with special measures		
Human Resources	Required personnel available and trained; work and test instructions complete	Only limited personnel available / trained, no negative quality impacts expected (3)	No trained personnel or not enough personnel available; negative quality impacts possible (4)		

Self-assessment of organization

Entry incorrect, please check

Confirmation of organization

Name		Remark	
Department			
Telephone			
E-Mail			
Date		Signature	


Instruction how to fill in the form:

(1)	Logistics: if applicable evaluate: - towards customer, within the organization, from supplier (e.g. transport, packaging specification created; serial packaging in agreed quantity available, no negative quality impacts to expect)
(2)	Agreed production quantity: Production equipment refers to lines / equipments / machines / tools / jigs / fixtures
(3)	Only limited personnel available/qualified, no negative quality impacts expected: - number and qualification still have to be optimized, - work and inspection instructions completely available
(4)	Not enough qualified personnel available: negative quality impacts possible, work and/or inspection instructions not completely available
(5)	Input mandatory, if other evaluation than "Requirements met"


Packaging instruction

It is expected that it is the responsibility of the supplier to create a packaging proposal (please click on "packing proposal") to ElringKlinger. The packaging instruction has to be made in advance before sending the initial sampling documentation. This is needed if there are some changes before the first delivery, otherwise we cannot provide suitable packaging for the production area.

ElringKlinger checks this proposal internally and creates a final-mandatory packaging instruction.

Plant Address / Werk:		Packing Proposal <input type="checkbox"/> Verpackungsvorschlag Packing Instruction <input type="checkbox"/> Verpackungsvorschrift			 PID: <input type="text"/>	
Part-No. / Sach-Nr.	Description / Bezeichnung	EK Part-No. / EK Sach-Nr.	Weight / Gewicht	Supplier / Lieferant	Supplier-No./Lief.Nr.	
The below documented packaging should be used from valid date on. By using otherwise packaging ElringKlinger will charge the cost for repack. Die unten beschriebene Verpackung muss ab Einsatzdatum verbindlich verwendet werden. Bei Verwendung abweichender Verpackung behält ElringKlinger Umpackkosten vor.						
Package Datas / Verpackungsdaten Returnable Container / Wechsel-Ladungsträger <input type="checkbox"/> Customer <input type="checkbox"/> ElringKlinger <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Card Board Box / Karton <input type="checkbox"/> Others Packing Procedure: / Packschema: <input type="checkbox"/> In Bulk / Lose im Behälter <input type="checkbox"/> Bundled / Gebündelt <input type="checkbox"/> PE-Bag / PE-Beutel <input type="checkbox"/> Interlayer / Zwischenschicht <input type="checkbox"/> Special Package / Sonderverpackung		Fill-up quantity / Füllmenge Weight / Gewicht Dimensions / Abweichung Remarks / Bemerkungen				
Outer package / Umverpackung <input type="checkbox"/> Wood Box / Holzkiste <input type="checkbox"/> Cardboard / Karton <input type="checkbox"/> Close Cap / Abschlussdeckel <input type="checkbox"/> Euro Wood Pallet / Euroholzfachpalette <input type="checkbox"/> Press Board Pallet / Pressspanpalette <input type="checkbox"/> Customer Box / Kundenbehälter <input type="checkbox"/> Plastic Palett / Kunststoffpalette <input type="checkbox"/> Other Package / Sonstige Verpackung		Designation / Bezeichnung Fill-up quantity / Füllmenge Weight / Gewicht Dimensions / Abmessung				
Labelling / Kennzeichnung <input type="checkbox"/> VDA Label / VDA-Etikett <input type="checkbox"/> Others / sonstiges		Remark/Bemerkungen Each load carrier has to be signed with a label in English/German. Jeder Ladungsträger ist mit Etikett in deutsch/englisch zu kennzeichnen				
Plant-Specific Packaging Guidelines: Werkspezifische Verpackungsrichtlinien:				Picture (if necessary) / Foto (wo notwendig)		
Realized / Changed / Erstellt / Geändert		Approved / Genehmigt		Valid Date / Einsatzdatum		Supplier / Lieferant
Date / Datum	Name / Name	Date / Datum	Name / Name			Page 1 von 2 Blatt 1 of 2

Maschinell erstellte Verpackungsvorschrift, gültig auch ohne Originalunterschrift.
 Computer realized packing instruction, valid without signature.

Plant Address / Wert:	Packing Proposal Verpackungsvorschlag <input type="checkbox"/> Packing Instruction Verpackungsvorschrift <input type="checkbox"/>	 ID: <input style="width: 100px;" type="text"/>
-----------------------	--	---

Part-No. / Sach-Nr.	Designation / Bezeichnung	EK Part-No. / EK Sach-Nr.	Weight / Gewicht	Supplier / Lieferant	Supplier-No./Lief.Nr

The below documented packaging should be used from valid date on. By using otherwise packaging ElringKlinger will charge the cost for repack.
 Die unten beschriebene Verpackung muss ab Einsatzdatum verbindlich verwendet werden. Bei Verwendung abweichender Verpackung behält ElringKlinger Umpackkosten vor.

Pictures (if necessary) / Fotos (wo notwendig)

Realized / Changed Erstellt / Geändert	Approved Genehmigt	Valid Date Einsatzdatum	Supplier Lieferant	
Date / Datum	Name / Name	Date / Datum	Name / Name	Page 2 von 2 Blatt 2 of 2

Customer specific documents (if required)

These step are only necessary if ElringKlinger demands additional information from the supplier.

Pass-through part (Recognizable at the 14. digit part number at the order instead of the 8 digit part number)	Therefore two initial sample documentations are needed. One with the F-drawing and the second with the K-drawing. F-drawing contains all information and part number of ElringKlinger K-drawing contains all information and the customer part number of , ElringKlinger.


Master and product sample

For initial sampling, 5 sample parts (per cavity and tool) are minimum requested. Samples and documentation with delivery note has to be sent to the requested person from Supplier Quality Management of ElringKlinger. Initial samples (packaging) must be clearly and permanently identified. This can be done by using tags, labels, for example. The delivery note must include the words 'Initial sample' and the initial sample order number and part number from ElringKlinger. The exact amount of sample parts are specified in the purchase order.

Sample parts must be separated and numerated according to cavity and tool.

Request for Deviation (RfD)

If it is necessary to generate a Request for Deviation then ElringKlinger has to be informed. This information has to be submitted as soon as it was detected to ElringKlinger.

Datum: Date:		Antrag auf Abweicherlaubnis <i>Request for Deviation</i>				
Lieferant: Supplier:		Material-Nr.: Material No.:				
Lieferanten Nr.: Supplier No.:		Material-Bezeichnung: Description:				
Projekt-Nr.: Project-No.:		Zeichnungsnummer: Drawing No.:				
Kurzbeschreibung der Abweichung (inkl. Stückzahl und / oder Dauer / Anhang 1 benützen für Bilder): <i>Brief description of the deviation (including quantity and / or duration / use annex 1 for pictures):</i>						
Maßnahmenplan: Action plan:			Verantwortlicher: Responsible:		Datum Fertigstellung: Completion date:	
Marking of each box, of first delivery, after process and / or product change, with label CF-CU-QM-18. "Clean point delivery"						
Lieferant (authorisierte Unterschrift): Supplier (authorized signature):			Telefon: Phone:			
Name:			Datum: Date:			
			E-Mail:			
			E-Mail:			
EK behält sich vor, die Kosten für den Bearbeitungs und Dokumentationsaufwand in Rechnung zu stellen. Für etwaige nicht vorhersehbare funktioneller Einschränkungen der Abweichung behält sich EK vor diese ebenfalls in Rechnung zu stellen. <i>EK reserves the right to charge back costs associated with this processing or any non-predictable functional restrictions / complaint of the deviation.</i>						
Anmerkungen und/oder Anweisungen von EK: <i>Comments and/or instruction of ElringKlinger:</i>						
Kundengenehmigung: Customer approvals:		IA = Interim approved* A = Approved NA = Not approved	Name: Name:	E-Mail: E-Mail:	Datum: Date:	Unterschrift: Signature:
Produktingenieur: Product engineer:		<input type="checkbox"/>				
Processingenieur: Process engineer:		<input type="checkbox"/>				
Qualitätsingenieur Werk: Quality engineer plant:		<input type="checkbox"/>				
Sonstige (Einkauf, Montage, usw.): Other (Buyer, Assembly Plant, etc.):		<input type="checkbox"/>				
Lieferantenentwicklung: Supplier Quality Engineer:		<input type="checkbox"/>				
		RfD No: -- --		RfD _		(insert date of release) jjjjmmdd
* Menge oder Dauer: * Quantity or Period:						


Request of change (RoC) ③

If it is necessary to generate a Request of change then ElringKlinger has to be informed. This information has to be submitted to ElringKlinger for approval.

Date:		Request for Change																																			
Select language		<input type="checkbox"/> Product		<input type="checkbox"/> Process																																	
English																																					
Input	Supplier:		Material No.:																																		
	Supplier No.:		Material description:																																		
	Project-No.:		Drawing No.:																																		
			Affected EK-Plants :																																		
Change necessary for: <input type="checkbox"/> EK-A-Samples <input type="checkbox"/> EK-C-Samples <input type="checkbox"/> Serial production <input type="checkbox"/> Testing data supplied <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> EK-B-Samples <input type="checkbox"/> EK-D-Samples <input type="checkbox"/> FMEA or risk assessment supplied <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Are special criterias affected <input type="checkbox"/> Yes <input type="checkbox"/> No																																					
Type of change: <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <table border="0"> <tr><td>Yes</td><td>No</td><td></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Product/ Packaging</td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Subcontractor</td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Testing methods/ equipment</td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Relocation/set-up of production site</td></tr> </table> </td> <td style="width: 50%; vertical-align: top;"> <table border="0"> <tr><td>Yes</td><td>No</td><td></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Production methods, processes* and materials (also at subcontractors)</td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Machine change</td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Relocation/set-up of production equipment at the same production site</td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Others**:</td></tr> </table> </td> </tr> </table>						<table border="0"> <tr><td>Yes</td><td>No</td><td></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Product/ Packaging</td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Subcontractor</td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Testing methods/ equipment</td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Relocation/set-up of production site</td></tr> </table>	Yes	No		<input type="checkbox"/>	<input type="checkbox"/>	Product/ Packaging	<input type="checkbox"/>	<input type="checkbox"/>	Subcontractor	<input type="checkbox"/>	<input type="checkbox"/>	Testing methods/ equipment	<input type="checkbox"/>	<input type="checkbox"/>	Relocation/set-up of production site	<table border="0"> <tr><td>Yes</td><td>No</td><td></td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Production methods, processes* and materials (also at subcontractors)</td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Machine change</td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Relocation/set-up of production equipment at the same production site</td></tr> <tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>Others**:</td></tr> </table>	Yes	No		<input type="checkbox"/>	<input type="checkbox"/>	Production methods, processes* and materials (also at subcontractors)	<input type="checkbox"/>	<input type="checkbox"/>	Machine change	<input type="checkbox"/>	<input type="checkbox"/>	Relocation/set-up of production equipment at the same production site	<input type="checkbox"/>	<input type="checkbox"/>	Others**:
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**changes according to trigger matrix for PPF procedure VDA Volume 2 to be observed			*Including replacement or changes to molds, tooling, fixtures, support machinery or processes																																		
Detailed Description of the Change (including quantity and if applicable drawing and/ or order norm with changes):																																					
Reason for change:																																					
Planned detailed timetable for the change period:																																					
Start change (planned)		Remarks																																			
FOT Samples with change																																					
PPAP of the change:																																					
Planned start of serial production																																					
Others																																					
How is quality and capacity guaranteed? (incl. details of all planned safety storage facilities and scrapping; check status with the ElringKlinger dispatcher)																																					
How is traceability guaranteed? Please give information how productions are delineated from each other.																																					
Cost effect																																					
Note: This document must be submitted to ElringKlinger at least 6 months before the introduction of the proposed change.																																					
Name			Department/ Position																																		
Phone			E-Mail																																		
Date:			Supplier (authorized signature)																																		
Attention: This document is not a written approval of ElringKlinger, neither for the beginning, the preparation nor for the implementation of the modification! The change can be implemented only after written approval of ElringKlinger. EK reserves the right to charge back costs associated with this processing																																					


Second page is reserved for ElringKlinger.

The request for change is only approved with "A" or "IA" and signing of the senior supplier quality manager!

Request for Change			
to be completed by ElringKlinger			
Supplier:		Material No.:	
Supplier No.:		Material description:	
Project-No.:		Drawing No.:	
		Affected EK-Plants :	
Comments and/or instruction of EK:			
Approval:			
<p style="margin-left: 40px;">IA = Interim approved* A = Approved NA = Not approved</p>			
	Name	E-Mail	Date:
Product Engineering:	<input type="checkbox"/>		Signature
Industrial Engineering:	<input type="checkbox"/>		
Program Management Plant (PMP)/ BU Director PM (ex. Standard Parts):	<input type="checkbox"/>		
Purchasing Manager (Plant)/ Commodity Manager (CU):	<input type="checkbox"/>		
Supplier Quality Management (CU): Senior SQM Specialist (SSQMS):	<input type="checkbox"/>		
Other:	<input type="checkbox"/>		
	* Quantity or Period:	<input style="width: 150px;" type="text"/>	
Distribution: Persons above (Customer approvals) + Quality Engineer Business Unit			
Attention: This document is not a written approval of ElringKlinger, neither for the beginning, the preparation nor for the implementation of the modification! The change can be implemented only after written approval of ElringKlinger.			
EK reserves the right to charge back costs associated with this processing			

Check label cleanpoint delivery ③

Each delivery unit for the first delivery after claim or process change e.g. has to be marked with the ElringKlinger standard document CF CU-SQM 018.

<h1>Cleanpoint delivery</h1>							
Information about the organization				Information about the customer			
Name	Supplier number		Recipient location	ElringKlinger	Part number		
	Delivery location				Part description		
	Production location				Drawing number		
	Part number				Index / Date		
<input type="checkbox"/> Claim		<input type="checkbox"/> Production process change		<input type="checkbox"/> Other			
Claim number							
Remark	Example: Process change description or other comments						
Batch number							
Delivery note number							
Confirmation of organization							
Name				Remark			
Department							
Telephone							
E-mail							
Date				Signature and company stamp			