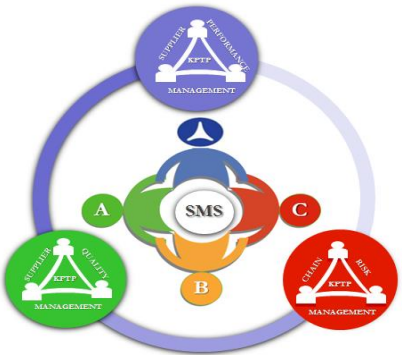
Click Here to Move Back to the Table of Contents

KFTP-QP-19
SUPPLIER MANAGEMENT SYSTEM (SMS)- VOLKSWAGEN GROUP



CONFIRMATION:

We hereby confirm that we have received and we understand the Supplier Management System Manual. We understand that this manual defines the overall quality requirements for the products that are purchased by KFTP as well as the ways of working with KFTP

We agree to strive to meet these customer requirements, in all our facilities working with KFTP

We understand that it is our responsibility to ensure that only the latest revision of this Manual is used by periodically checking the KFTP homepage for revisions and updates.

Supplier name and code	
Supplier Address	
Submitted by (Name)	
Function	
Telephone number Email address	
Date, Signature	

KFTP-QP-19
SUPPLIER MANAGEMENT SYSTEM (SMS) TABLE OF CONTENTS

	QUALITY SYSTEM	Doc. No	KFTP-QP-19
		Rev. No	4
	Supplier Management System (SMS)	Rev. Date	01.12.2016
		Page	1/35

Click Here to Move Back to Table of Contents

1. Type of process	COP (Customer Oriented Process)	SP (Support Process)	MP (Management Process)	**2. Process Owner**	QMS Manager

3. Prupose	**4. Application scope**
This manual provides basic information about KFTP to its Suppliers and defines the general quality requirements. Suppliers must meet or exceed when performing work required by a KFTP purchase order.	This Supplier Management System (SMS) applies to all Suppliers of production parts, raw materials, service parts and sourced product to KFTP.

5. Explanation:

1. Supplier Quality Expectations:
KFTP is committed to producing quality, reliable and cost effective products that are shipped on time, provide customer value, and conform to national and international requirements. KFTP and its Customers demand and expect defect free products and services and we recognize the importance of its. Suppliers in providing KFTP with quality parts and raw materials on time so that those Customer's expectations can be met.

2. Communication Expectations:
Suppliers are a very important for KFTP and good communications are critical to building an effective relationship. By following the standardized Supplier quality instruction outlined in this SMS, Supplier issues affecting product quality, service, and delivery can be controlled to eliminate any possible negative effect to KFTP and/or KFTP Customers.
It is critical that Suppliers become fully knowledgeable of the SQM so that they understand how, when, and why submissions and documentation are provided to KFTP. KFTP strives for effective and positive relationships with its Suppliers. Suppliers are encouraged to contact with KFTP Development Manager or QMS Manager or Quality Manager and whenever clarification is needed about the SMS or if the Supplier foresees some problem in being able to meet the commitments of the system. Early effective communication can help resolve issues before they become a problem.

6. Revision History

Rev. No	Rev. Date	Revision Status		Reason of Revision	Major Revision Contents	Prepared by	Checked by	Approved by
		Partial	Overall					
△0	30.05.2011		●	ISO/TS 16949:2009 QMS	Newly process	M. Skrzypczyk	G.S.Seo	J.H Kim
△1	20.12.2013	●		Modification of overview of PPAP	Revision	M. Skrzypczyk	G.S.Seo	J.H Kim
△2	20.01.2014	●		Cleanliness requirements	Revision	M. Skrzypczyk	G.S.Seo	J.H Kim
△3	01.06.2015	●		Adding new process „Material/Components Delivery and Logistics Requirements"	Revision	M. Skrzypczyk	H.Lee	J.H Kim
△4	01.12.2016	●		Adding obligatory requirement regarding requalification test.	Revision	J.Zaleska	M.skrzypczyk	Y.S.Lee

KFTP contacts- Supplier contacts

Click Here to Move Back to Table of Contents

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7. Revision History

Click Here to Move Back to Table of Contents

Revision Number	Date	Reason of revision	Prepared by	Checked by	Approved by
0	01.05.12	Full PPAP requiremnts satisfaction	M.Skrzypczyk	G.S.Seo	J.H.Kim
1	20.12.13	Modification of overview of PPAP and adding Supplier Change Request	M.Skrzypczyk	G.S.Seo	J.H.Kim
2	20.01.14	Cleanliness requirements	M.Skrzypczyk	G.S.Seo	J.H.Kim
3	01.06.15	Adding new process „Material/Components Delivery and Logistics Requirements"	M.Skrzypczyk	H.Lee	J.H.Kim
4	01.12.16	Adding obligatory requirement regarding requalification test.	J.Zaleska	M.Skrzypczyk	Y.S.Lee

8. Glossary of terms

Click Here to Move Back to Table of Contents

CC's (Critical Characteristic)	Are part characteristics identified on KFTP's drawings and/or material specifications that significantly affect performance, fit, function or workability on thefinished good, and therefore require application of statistical measuresfor capability assessment and/or 100% control.
Component Drawing	The Engineering controlled documentation used as part of the contractual information that defines the Engineering dimensional and other requirements. The drawing may be in electronic or hard copy form. An electronic 3-dimensional model may be considered a drawing or part of a drawing documentation.
Component Part	Generally a single part or simple assembly that has a specific purpose in a subsystem, system, or product.
Component Subsystem	Generally an assembly of two or more components that provides partial functionality needed to perform a defined product function.
Containment Plan	A plan developed to make sure that components used on products meet the Design quality level. An example may be "100% inspection of the critical parameters"
Control Plan	The Supplier Control Plan is a document which indicates CFs, all process steps, all quality assurance check items and their frequency, SPC reporting method, process capability, and Gage R&R.
Capability Studies (Cpk & Ppk	A measure of process variation and centering relative to the specification range and target. A Cpk/Ppk value ≥1.33 is the minimum goal for this measurement and IR must approve all exceptions. If a 1.33 Cpk is achievied then continuous improvement is expected to reach and maintain a Cpk of 1.67.
Design FMEA	Design Failure Mode and Effects Analysis is an activity to assess and prioritize the risk of failure of a product design component, subsystem, or system in achieving product performance, reliability, or safety goals and develop mitigation plans for the critical few. Output will include corrective actions to mistake-proof the design or take other measures to ensure the design function will be met. Results from the DFMEA are used to identify the component failure modes that have causes that need to be addressed in the Validation Plan.
Design Review of Test Results	Meeting held to review the results of the validation tests that were done for the DFMEA. Attendees typically include technical experts as appropriate to render conclusions from the testing done to confirm the component's ability to meet performance and reliability CFs
First Article Inspection Worksheet	A worksheet that is used to record the component parameters actually measured on a component part sample and compare against the drawing or specification requirements.
Functional Test	A test to measure the component or component system ability to perform to the required functional requirements. Functional tests may include performance in a defined operating range and/or in a defined operating environment range, or a system or sub-system test to confirm capability for its intended function.
Gage R&R	This study is performed by the Supplier to evaluate the amount of measurement error associated with a particular gage. The Supplier, using the Supplier Gage R&R form, will demonstrate whether there is enough of a confidence level in the gage for it to be used to evaluate parts/materials which are to be supplied to KFTP.
Pre-Production Product Prototypes	Consists of any product, product system, sub-system or component prototypes that will be used to apply the component to a KFTP product in KFTP production. This can include concept prototypes, design verification prototypes, and KFTP manufacturing process prototypes.
Process Flow Diagram	A map that characterizes the manufacturing and material flow processes and check steps used in the Process Qualification Plan for a Process FMEA and development of a control plan
Process FMEA	Process Failure Mode and Effects Analysis is an activity to assess and prioritize the risk of failure of a product design component, subsystem, or system's manufacturing process in achieving product performance, reliability, or safety goals and develop mitigation plans for the critical few.
Production Lot Run Trials	Components made on production tooling for a selected volume of KFTP production units. These trials are typically conducted to generate statistical data to confirm capability.
Supplier Process Audit	This is the plan to document the processes and validate the measurement systems for components with CC's. This plan will be used to assure each CC has a plan for control and that the measurement systems to be used have been validated.
Validation Plan	The plan that defines the responsibilities and actions required to qualify and validate the component supplied to meet the design intent CC's and other requirements at the defined quality level
Samples for PPA (initial samples)	are products and materials which have been manufactured entirely with production equipment under production conditions as part of the PPA
Other samples	are products and materials which have been not manufactured entirely under production conditions. Samples of this kind cannot be used for the PPA

1.Prupose	2.Application scope
To provide the methods for determining, documenting and, when applicable, auditing suppliers for compliance with company policies and contract purchasing requirements.Purchased products,services should conform to specified requirements. This starts with selection of apprioporate suppliers that have the capability and systems to supply products, materials and services to satisfy KFTP requirements.	This procedure appliesto all KFTP suppliers of products, materials, and services that directly affect the quality of KFTP products and services.

3. KFTP responsibilities

1. Purchasing is responsible for initial supplier identification and for collection of business information related to the potential supplier. Purchasing is also responsible for maintaining supplier performance data for ongoing supplier evaluation.
2. Development is responsible for evaluation of the potential supplier's technological capability.
3. Quality Managment is responsible for evaluating the supplier's quality systems as appropriate and for reporting supplier quality performance on a continuous basis.

3.Explanation to Process Flow Chart:

1. Selection ,qualification , nomination and order process

In order to enter into a business relationship with KFTP as a supplier, first of all a process defined by KFTP must be passed.
All the information collected is checked and evaluated by KFTP. Using this evaluation the supplier receives a corresponding grading.
Without exception, a decision to nominate an approved supplier is always made on the basis of an award recommendation by the competent KFTP Purchasing Department committees. The order is processed after order award.
The assessment of KFTP´s suppliers is based on the following criteria:

Quality Management
– Certificates
– Potential Analysis

Development
– Technology / Equipment
— Development Time
— Skills / Experience

Purchasing
– Price
- Capacity

2. Supplier disclosure

The supplier applies to KFTP with a detailed supplier self-disclosure filled in by him.The self-disclosure allows KFTP to assess the supplier organizationally, economically and also qualitatively and forms the basis for all further activities.The supplier self-disclosure consists of the following documents:
–Supplier Information – the supplier disclosure contains the organizational and economic details of the supplier.It identifies who the supplier's contact people are, how the organization is structured,how the equipped and which certificates he has achieved.
Applicable documents: Format "Supplier overview"
–Quality Questionnaire –with the self-assessment the supplier evaluates his Quality System in the form of a self-grading.
Applicable documents:Format "Quality questionare"
–Feasibility study*– with the Feasibility study the supplier certifies that he has comprehended the task company wide and that he has proved and rated all specification requirements (each characteristic).
The supplier must be able to manufacture the parts under consideration of all requirements and specifications of the KFTP in the quality and quantity required. This is confirmed by signing the Feasibility study.
—Confidentiality agreement (if necessary)—The supplier must ensure confidentiality in the development of products and projects on behalf of KFTP and also safeguard the applicable product information. Information received from KFTP is to be kept secret and must only be passed on to third parties when prior consent is agreed with KFTP in writing.
Applicable documents:
—Exclusivity agreement (if necessary)— Products which the supplier manufactures using KFTP know how must be supplied exclusively to KFTP and not disposed of to third parties.
*if a specific product is already requested

3. Initial audit & Potential Supplier Audit

A potential analysis is a reduced process audit and is used to assess new, unknown suppliers (applicants), facilities and technologies, including the development and process opportunities of the supplier in preparation of the award decision.
The potential analysis relates to the specific parts and processes identified by the purchasing department. An assessment is made regarding the suppliers experience to manufacture similar products, including its product and process implementation capabilities.
A positive potential analysis triggers the qualification process for the supplier.
A positive result of the potential analysis does not necessarily result in an award decision. However, a negative result of the opportunity assessment will exclude the supplier from the award. KFTP expects the supplier to provide the best possible support for conducting the opportunity assessments/supplier audits.
Activities before the visit by KFTP:
KFTP Purchasing:
As a first step all necessary documents are sent to the supplier. The dispatch of these documents is done the by KFTP Purchasing (see point 2).
Supplier:
The supplier submits a quotation with regard to the part price, a capacity assessment, the tooling costs and also packaging and transportation costs.
KFTP quality management:

To analyze the potential of the supplier depending on the parts' criticality audits are mostly carried out in accordance with the VDA standard. If required an audit question catalogue will be made available to the supplier in advance for the purpose of preparation.

A potential analysis is carried out in order to asses a new, not previously known potential supplier, new locations and technologies, the new organisation's development and process potential, as preparation for a decision on whether to place a contract. The assessment judges the experience

of the potential supplier in the manufacture of similar products and his potential in the creation of products and processes. A potential analysis with a positive outcome is not necessarily linked to a decision to place a contract with the company. A negative outcome eliminates the possibility of a contract.

Execution of the first audit:
The first audit is carried out by an auditor from KFTP Supplier Qualification. In addition specialists from other areas (e.g. Purchasing, Development) can be involved in a supporting role.

4. Process Sign Off (PSO)

The Process Sign Off (PSO) is only carried out by KFTP for selected parts. The aim of a PSO is to check the capability of a supplier's manufacturing process concerning KFTP products. It has to be ensured that the customer's requirements have been completely understood by the supplier.
A PSO is a systematic and sequential check on the series manufacturing process at the supplier's. This check is carried out at the planned manufacturing speed, with the designated manufacturing personnel, the series manufacturing facilities and also series equipment, processes, materials, methods
Activities before the visit by KFTP:
The requirements and contents of the PSO are explained to the supplier and agreed with him. Checking the documentation: The supplier must support KFTP with suitable documentation.This takes place in accordance with the PSO checklist (Examples of documents).
Applicable documents:
Process sign-off KFTP-Q .. .
This documentation must include a product start up plan, which must contain a planned capacity rate and also the accepted failure rates.
Participants during the PSO:
An auditor from KFTP Supplier Qualification takes on the management of the PSO.Optionally other specialists from other areas (such as e.g. from Purchasing, Development) can participate in a supporting role.
Execution of the PSO:
The duration of production during the PSO must be agreed between KFTP and the supplier. Both KFTP and also the supplier must accept this agreement. The minimum requirement is for a representative quantity to be produced. The aim is to establish that a robust and capable series process has been established.
During the PSO the criteria are questioned and documented in accordance with the PSO checklist. Data which document the readiness for series production of the process, i.e. for example the manufacturing speed, cycle times, process capabilities etc., are to be determined and analyzed during the PSO. For this defined critical characteristics are to be checked in advance at a suitable frequency and assessed with regard to their capability.
Functioning tests are to be carried out where they are sensible and appropriate.The initial sample documentation must be complete and available for cross checking. Is the initial sample documentation not available at deadline, parts are taken out the process and defined as initial samples. A unique and agreed labeling has to be defined

5. Sampling

The aim of sampling is to prove the capabilities with regard to quality required from the supplier and to check whether the requirements of the drawings or specifications are being fulfilled. The KFTP-QOHSEP-19 defines and specifies procedures and rules for the character, manufacture, testing and approval of samples. These procedures and rules are applied to all sample parts which are purchased for the further manufacture of KFTP products.
The supplier has to document all characteristics and their tolerances marked in drawings, specifications and other belonging documents in the initial sample inspection report (ISIR) in a traceable way. Traceability means attaching copies of drawings etc. at the ISIR which contain the continuous numbers of the characteristics according tothe ISIR. In CAD drawings the numbers are defined in the characteristics list.
For serial deliveries the supplier has to take the execution time of the initial sample inspection for his time schedule into consideration. The initial sample inspection is product dependent so the supplier has to request the estimate execution time of the initial sample inspection at the purchasing department. Serial production shipments without any initial sample release remains to the risk of the supplier.

6.Process Flowchart

Qualification process

Process element	Documents	Responsibility
Supplier disclosure	●Quality questionnaire ●Supplier Information ●Feasibility study ●Confidentiality/Exclusivity Agreement (if necessary)	Provided by supplier
Initial Audit & Potential Analysis	●Potential Analysis Supplier Audit	Executed by KFTP auditors
Supplier Selection and Nomination	● Supplier Selection Criteria ● Supplier Nomination	Executed by KFTP Purchasing Dept.
Process relese	●Process Sign Off (PSO)	Executed by KFTP auditors
Sampling	●KFTP standard ●PPA	PPA by supplier, inspection by KFTP
Additional requirements	●Special and critical characteristics ●FMEA analysis ●Inspection equipment capability ●Machine and process capability	Provided by supplier
Optional		
Advanced Product Quality Planning (APQP)	●KFTP APQP ●Supply on Project Management	Interaction KFTP-Supplier vis Supply on

Click Here to Move Back to Table of Contents

1.Prupose

The Production Process and Product Approval (PPA) process is used to provide evidence, before the start of production, that the customer requirements agreed in specifications and other requirements are satisfied.
The approval/release covers the evaluation of processes and products based on relevant documents, records and PPA samples in order to ensure that the requirements for production deliveries of conforming products have been met by the supplier.
Positive results lead to full approval production shipment authorization by the customer.

2.Application scope

Applies to all suppliers of manufactured/finished parts,spare parts, raw parts, and production materials/auxiliary materials which will become integral parts of the product to KFTP in case of:
a)new parts or products
b) notifiable modifications which must be reported in accordance with PPA trigger matrix. This includes:
* modifications to products
* modifications to production process
* long-term production stop for more than 12 months.
NOTE: If there is any question concerning the need for PPA approval, contact the KFTP PPA coordinator.

3.Explanation:

KFTP follows theVDA 2 Quality Assurance for Supplies and AIAG PPAP for validation of all purchased material required for production applications. This PPA procedure is necessary to understand and comply with submission requirements.

4. Supplier Responsibilities:

It is expected that suppliers will obtain the PPA requirements and will understand the contents therein in conjunction with the exceptions listed below. PPA submissions are to be submitted to the KFTP Authorized Customer Representative (process owner) designated on the PPA Part Submission Warrant (PSW).
All products with unique part numbers require secure approval prior to supplying production quantities of product.
A PSW signed by the authorized customer representative and returned to the supplier is evidence of PPA approval.

5. The PPA Process in principle (sampling) - process description

5. 1 PPA Process planning (New / modified part/process or other reasons as in the trigger matrix

KFTP and supplier must carry out an agreement of the PPA Process for each product to be examinated with the aim of establishing a common understanding of the extent, contents and timing plan for the PPA Process.

The result of PPA Process planning must be documented, can include requirements related to:

●Initial pre-conditions such as, agreed specifications (including legal requirements), the customer requirements, drawings, standards, packing instructions, document issue levels, colour - match charts
●Milestones (sequences) must be planned so that a production shipment authorization can be issued at the right time
●Submissions level including documentation requirements
●A specified performance test/process validation (the batch size of the products to be produced must take account of the type of product and variants)
●KFTP and supplier can agree that a PPA Process shall be carried out for a defined product range (e.g. product family)
●Measurement and test methods
●Product and process characteristic to be selected for capability studies
● "Field failure analysis" must be demonstrated in agreed with KFTP form.
●If the same product is made at several different production locations a PPA Process must be carried out for each location. Also applies if the same product is made using different production equipment.
●All essential product-specific test equipment must be made available to the KFTP by the supplier on request for cross-checks to be made.
● For new parts the planning and agreement must be agreed and carried out at the maturity levles stated in VDA publication "Maturity level assurance for new parts"
●The agreement meeting for PPA Process following changes to production products is initiated by:
— KFTP, if the changes are initiated by the customer,
— the supplier following changes which are required to be reported - if there is no other mutual agreements all changes in product and process have to be reported
● the successful execution of the PPA Process is evidence of the capability of the production process (qualitative and quantitative) under production conditions (production tools, production location, production process conditions)
● Process capability is demonstrated statistically on the basis of agreed product and process characteristics
● Production shipment authorization can be obtained only by carrying out and providing positive proof of the PPA Process

5.2 Plan the PPA Process for the scope of supply (new/modified parts/processes)

The standard PPA submission level for suppliers is Level 2 as per VDA 2 Quality Assurance for Supplies - Production process and product approval (PPA), unless otherwise agreed with KFTP. Supplier submission of a non-conforming or late PPA package will be recorded as a supplier performance failure and could affect the supplier's performance rating. KFTP will determine the Level of PPAP submission and any special requirements if applicable.All non conformity shall be notified in the request for provisional authorization of deviations before PPAP sampling submission form. Supplier shall obtain Nidec approval prior to submission or shipment.
The table 1. below specifies which components should be submitted (V) as part of a standard PPA package and which should be retained (D) but available to the customer to review.

	Evidence requirded, if applicable to the product	0	1	2	3
Cover sheet to PPA report		V	V	V	V
1	Test results for product approval (e.g. geometry, dimensions, function, materials (strength, physical characteristics), weight, haptics, acoustics, odours, appearance, surface, reliability, ESD tests, electrical reliability)	D	D	V	V
2	Samples (quantity/delivery quantity as agreed)	D	V	V	V
3	Technical specifications (e.g. customer's drawing, CAD data, specifications, pproved design changes, resistance to short-circuit, voltage resistance, functional safety management)(FSM)	D	D	V	V
4	Product FMEA	D	D	D	D
5	Design/development approval by the supplier (in case of development responsibility)	D	D	V	V
6	Confirmation of compliance with legal requirements (e.g. environment, safety, recycling, national certificates)	na	V	V	V
7	Material data sheet to IMDS*	V	V	V	V
8	Software test report	D	V	V	V
9	Process FMEA	D	D	D	D
10	Process flow chart (production and test/inspection operations)	D	D	D	V
11	Production control plan	D	D	D	D
12	Confirmation of process capability	D	D	V	V

13	Evidence of compliance with special characteristics	na	na	V	V
14	List of test/inspection equipmnet (specific to the product)	D	D	D	V
15	Capability study testing equipment, if appropriate (result)	D	D	D	D
16	Tooling list (with quantities/number of cavities and information on tooling concept)	D	D	V	V
17	Confirmation of achievement of agreed capacity (process validation)	D	D	V	V
18	Written self-assessment on the criteria as evaluation matrix for maturity of product and process	D	D	V	V
19	Part history	D	V	V	V
20	Confirmation of suitability of the products carrying units, incl. storage	D	D	V	V
21	PPA status of components in the supply chain (purchased parts, directed parts by the customer and in-house parts)	D	D	V	V
22	Approval of coating systems to customer requirements	D	D	V	V

V For Submission at the customer
D Execution, documentation and archiving at supplier (if appropriate for inspection by the customer)
na Not applicable; presentation level must not be selected
* Independent of the contractual arrangements, the material data sheet must be provided by IMDS for itmems over the real supply chain

5.3 Carry out the PPA Process: check the initial samples for PPA and draw up/collect documentation for the customer

The supplier must carry out a PPA and document the results- must produce evidence of compliance with the requirements (documents agreed during PPA Process Planning)1-22 in Table 1. Evidence for PPA.

The framework conditions of the process validation are used in veryfying the process requirements. This include checks on the capability of measurement equipment and systems, with appropriate records of the results.
The framework conditions of the process validation are used in veryfing the process requirements. This will include checks on the capability of measurement equipment and systems, with appropriate records of the results.

To provide evidence of the product characteristics in accordance with item 1 of Table 1. all the requirements contained in the drawings and specifications must be checked and documented (proof of plausibility in the PPA Process planning meeting).
All characteristics must be clearly identified and shown individually with nominal values, tolerances and actual measured values.
Note: For CAD drawings details must be provided of reference points, test cross-sections and test surface areas.
The verification of the process characteristics via items 9to 20 Table 1.

The verification of the process characteristics is provided via items 9 to 20 of Table 1:Evidence for PPA

5.3.1 Significant Production Run

For production parts, product for PPA shall be taken from a significant run. This production run shall total a minimum of 300 consecutive parts (initial samples - see glossary of term) produced from one hour to eight hours (unless specifically agreed otherwise with the KFTP) and be manufactured at the production site, at the production rate, using the production tooling, gaging, process, materials, and operators. Parts from each unique production process stream shall be measured and representative parts tested.
Note 1) Dimensional Results
Supplier shall provide evidence that dimensional verifications required by the design record have been completed for each unique manufacturing process, e.g. cells or production lines and all cavities, molds, patterns or dies. and results indicate compliance with specified requirements.The supplier have to record all reference dimensions, and specifications as noted on the design record and Control Plan.
Note 2) Samples
Within the framework of a process validation the supplier must take a random sample (samples for PPA) to demonstrate the product characteristics and evidence of compliance with the specification requirements.
Suppliers are expected to clearly identify “pre-production- test &prototype parts” or “sample parts” to ensure that the KFTP receiving site does not mix such parts with “regular” production parts. Labelling must be done per specified requirements (e.g. VW 99000) and shall be differentiated from regular production shipping labels.

The samples must be clearly identified (e.g. with item numbers), so that they are securely linked to the individual measurments which are made. Where appropriate the identification should also indicate whether the parts are from single-cavity mold or multi cavity mold tools. Checks are made on the samples when they are ready for delivery and the results are documented. The results must be compared with the specified requirements. If there are discrepancies, improvements must be made until the internal PPA is to guarantee.

1.Prupose	2.Application scope
To document the design that is being approved by this PPAP submission.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products toKFTP, when the Design Record requirement is indicated on the PPAP Part Submission Warrant (PSW).

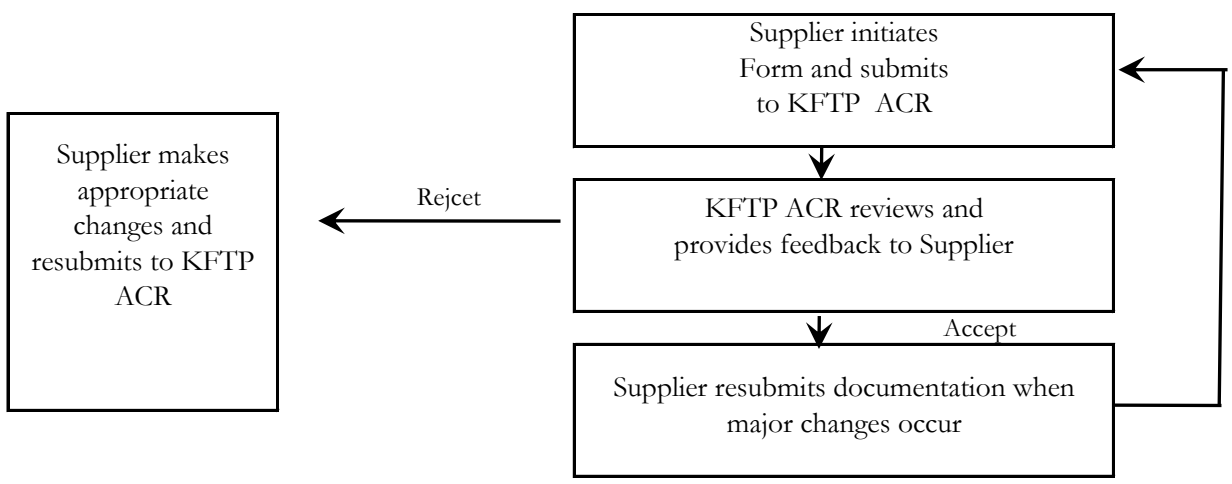
3. Explanation:

The purpose of the Design Record PPAP requirement is to ensure all appropriate Drawing and Specifications have been provided to the supplier and are current. Reference the Production Part Approval Process (PPAP)1 reference manual for guidance on completing this procedure.

4. Supplier Responsibilities:

1. When shall the Design Record requirement be performed?
A. Submission is required for Level 2, Level 3 or Level 5 PPAP, unless otherwise specified by the Authorized KFTP Representative (ACR) on the PSW.
B. If the components/details are proprietary, please contact KFTP (ACR) for guidance.
2. How should the Design Record requirement be completed?
A. The Design Record consists of:
1.1 Drawings
1.2 Specifications referenced (directly or indirectly) on either the Drawings or the Purchase Order.
B. A copy (electronic or paper) of each element of the design record shall be submitted with the PSW.
C. For parts where a KFTP Drawing or Specification is not defined, i.e. catalog parts, the design record may consist only of a functional specification or a reference to a recognized industry standard.
D. Any exceptions shall be approved by the KFTP ACR.

5. Process Flowchart



Click Here to Move Back to Table of Contents

1.Prupose	2.Application scope
To document any authorized engineering changes that have not yet been incorporated in the Design Record, but have been incorporated into the product to be approved by this PPAP submission.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP, when the Engineering Change Document requirement is indicated on the PPAP Part Submission Warrant (PSW).

3. Explanation:

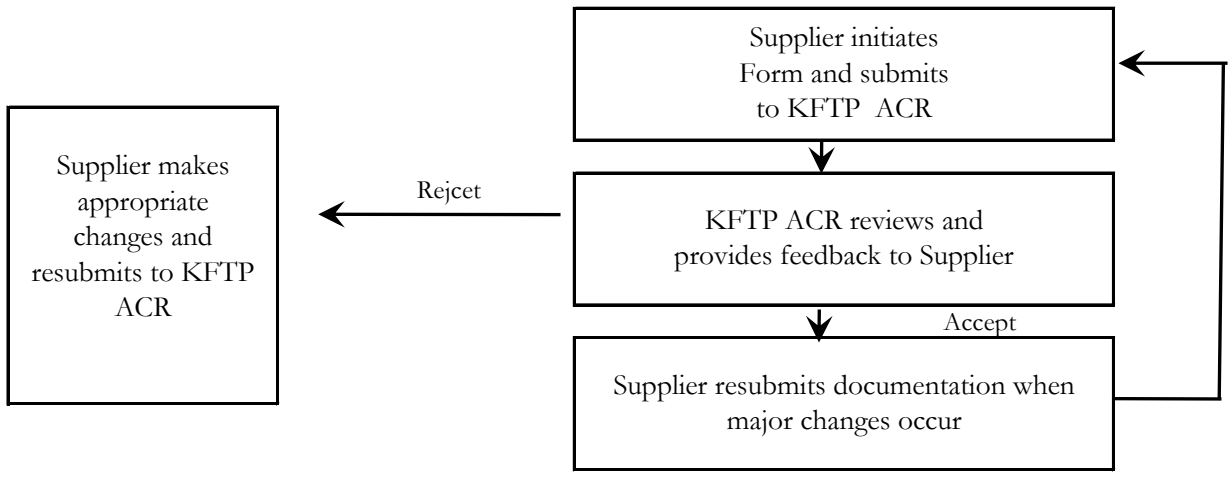
The purpose of the Engineering Change Documents PPAP requirement is to ensure any KFTP authorized engineering changes to the Design Record are properly documented and accounted for during the PPAP submission process.

Reference the Production Part Approval Process (PPAP)1 reference manual for guidance on completing this procedure.

4. Supplier Responsibilities:

1. When shall the Engineering Change Document requirement be performed?
A. Submission is required for Level 2, Level 3 or Level 5 PPAP, unless otherwise specified by the Authorized KFTP Representative (ACR) on the PSW.
2. How should the Engineering Change Document procedure be performed?
A. Copies of any KFTP communication that instruct the supplier to deviate from the design record shall be included with the PPAP PSW.

5. Process Flowchart



Click Here to Move Back to Table of Contents

1.Prupose	2.Application scope
To document that KFTP engineering has approved the design for parts that are being submitted for production approval.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP, when theKFTP Engineering Approval requirement is indicated on the PPAP Part Submission Warrant (PSW).

3. Explanation:

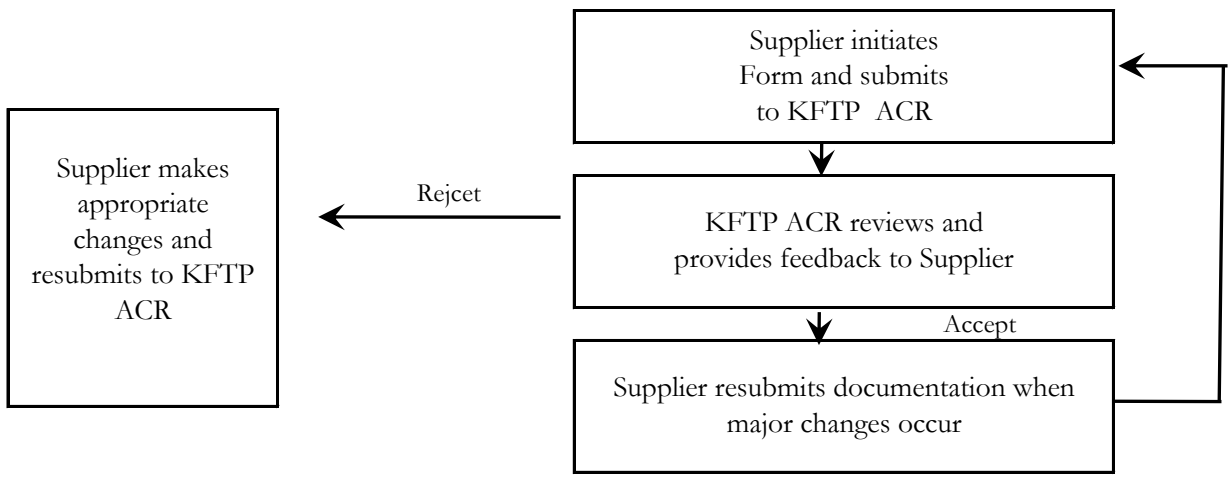
The purpose of the KFTP Engineering Approval PPAP requirement is to ensure that, when specified by KFTP, any formal KFTP Engineering Approvals have been received and properly documented during the PPAP submission process.

Reference the Production Part Approval Process (PPAP)1 reference manual for guidance on completing this procedure.

4. Supplier Responsibilities:

1. When shall the KFTP Engineering Approval requirement be performed?
A. Submission is required for Level 3 or Level 5 PPAP, unless otherwise specified by the KFTP Authorized Customer Representative (ACR) on the PSW.
2. How should the KFTP Engineering Approval procedure be performed?
A. All Engineering Approval requirements shall be communicated on the Design Record or on the PSW.
B. Copies of any KFTP communication that indicate Engineering Approval for each applicable requirement shall be included with the PPAP PSW.

5. Process Flowchart



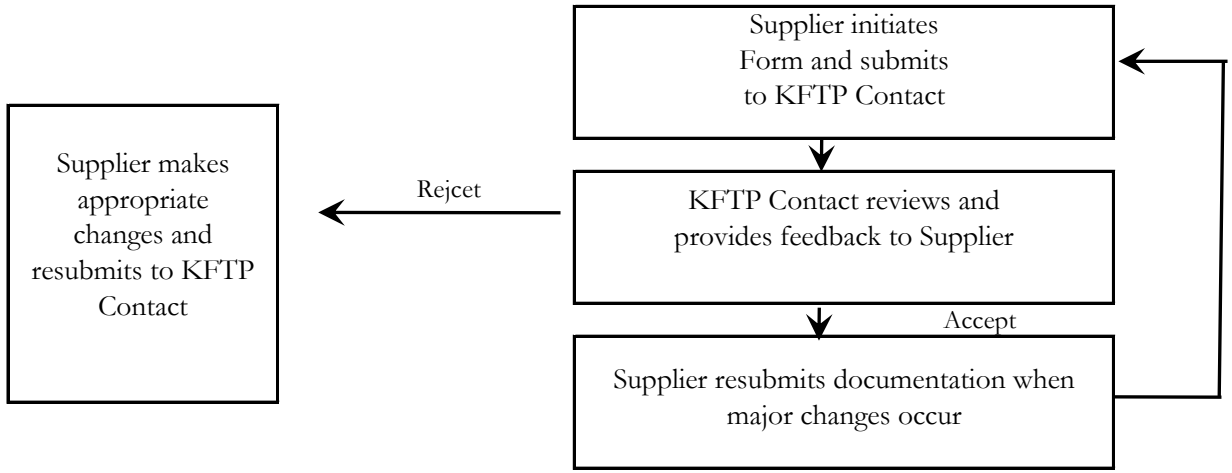
Click Here to Move Back to Table of Contents

1. Prupose	2. Application scope
To clearly describe the production process and the flow of product through each step of the manufacturing process.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP, when the Process Flow Diagrams requirement is indicated on the PPAP Part Submission Warrant (PSW).

3. Explanation:

The purpose of the Process Flow Diagrams requirement is to ensure that, when specified by KFTP, the supplier's process meets KFTP needs, requirements and expectations and is properly documented during the PPAP submission process.
The Process Flow chart is a schematic representation of the current or proposed process flow. It can be used to analyze sources of variations of machines, materials, methods, and manpower from the beginning to end of a manufacturing or assembly process. It is used to emphasize the impact of sources of variation on the process. The flow chart helps to analyze the total process rather than individual steps in the process. The flow chart assists with conducting the FMEA and designing the Control Plan. Reference the Production Part Approval Process (PPAP)1 and Advanced Product Quality Planning and Control Plan 2 reference manuals for guidance on completing this procedure.

4. Process Flowchart



Click Here to Move Back to Table of Contents

1.Prupose	2.Application scope
To predict the potential failure in the manufacturing process of a product, evaluate the effects of those failures, then identify actions to reduce the risk.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP.

3. Explanation:

A PFMEA should be conducted during product quality planning and before beginning production. It is a disciplined review and analysis of a new/revised process and is conducted to anticipate, resolve, or monitor potential process problems for a new/revised product program. A PFMEA is a living document and needs to be reviewed and updated as new failure modes are discovered.

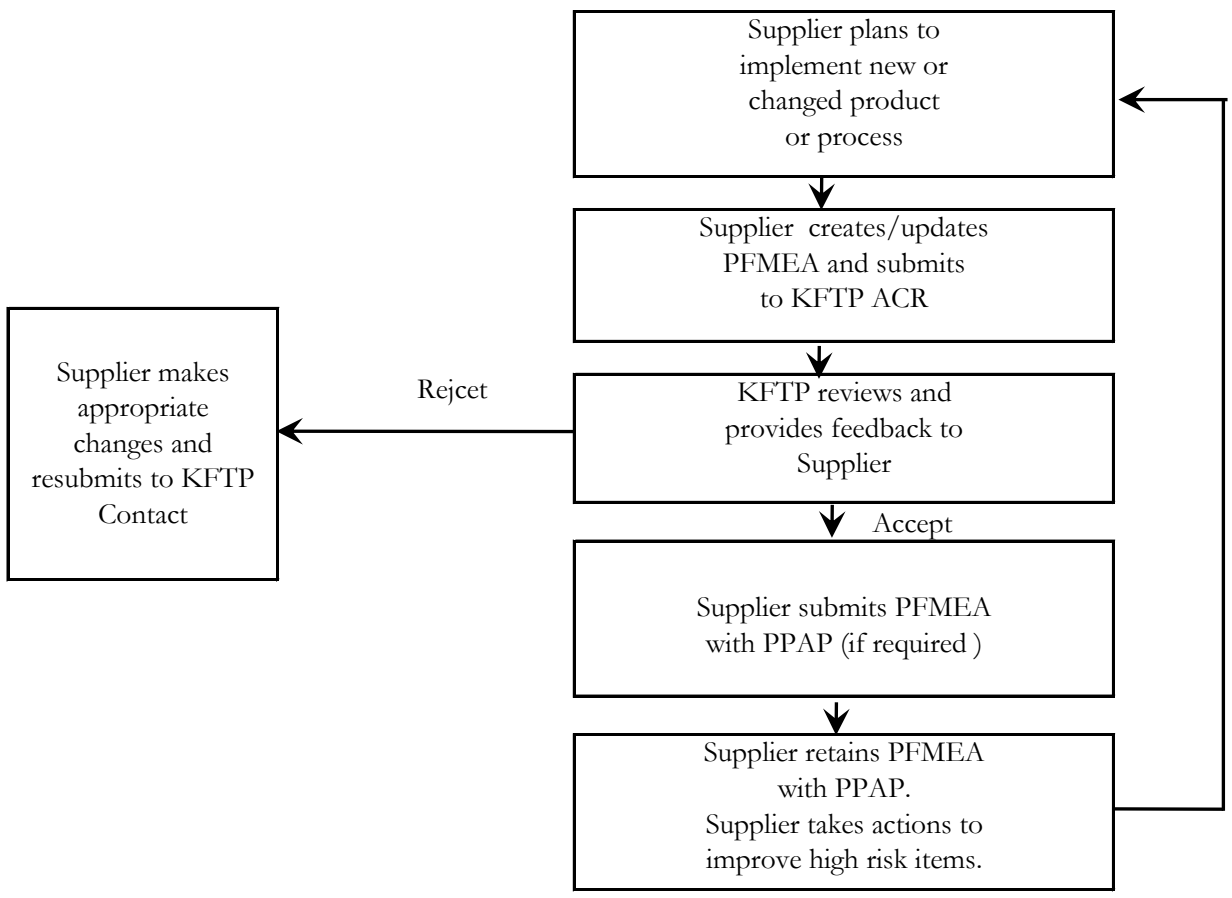
A PFMEA is used to identify potential weak areas in the manufacturing and assembling process. Cross-functional teams should be organized to study each step of process for possible failure modes, effects of failures, and potential causes. Countermeasures must be provided for failure modes with high Risk Priority Numbers (RPN). Also, regardless of the resultant RPN, special attention must be given when Severity is high.

Reference the Production Part Approval Process (PPAP) , Advanced Product Quality Planning and Control Plan (APQP) , and Potential Failure Mode and Effects Analysis, (PFMEA) reference manuals for guidance on completing this procedure.

4. Supplier Responsibilities:

1. When shall the PFMEA requirement be performed?
A. Submission is required for Level 3 or Level 5 PPAP, unless otherwise specified by the Authorized KFTP Representative (ACR) on the PSW.
2. Who shall complete the PFMEA requirement?
A. This requirement shall be performed by the Supplier's Cross Functional Team.
3. How should the PFMEA requirement be completed?
A. Create and submit a PFMEA for each process involved
B. Treat the PFMEA as a "living document" and maintain it throughout the life of the product. The supplier's Process Flow Diagram, Process FMEA and Control Plan should be aligned.
C. Assume that the design is capable and focus on process capability and control.
D. The PFMEA should be updated and revised whenever a potential change to the production process is being considered, such as during an Engineering Change, Process Change, or corrective action to a quality problem.
E. Show continuous improvement to reduce top RPNs.
F. Supplier must address and identify all KFTP Special Characteristics (Key Characteristics, Critical Features, and Critical to Quality (CTQ) items) on the PFMEA.
G. Retain and control the PFMEA's for KFTP products.
H. If the supplier deems the PFMEA a proprietary document, then the submission requirement may be substituted with a document review between the KFTP and supplier representatives.

5. Process Flowchart



Click Here to Move Back to Table of Contents

1. Prupose	2. Application scope
To define all methods used to control the manufacturing process and determine if product complies with customer requirements prior to shipment.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP, when the Control Plan requirement is indicated on the PPAP Part Submission Warrant (PSW)

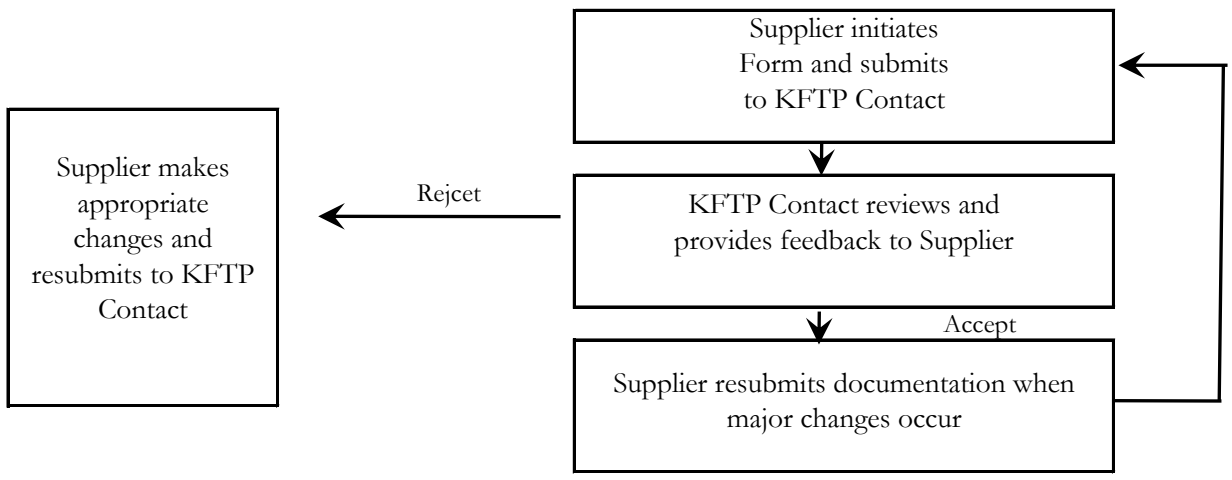
3. Explanation:

The Supplier Control Plan is a document which indicates critical product characteristics, all process steps, all Quality Assurance check items and their frequency, SPC reporting method, process capability, and Gage R&R.
The purpose of the Control Plan requirement is to ensure that, when specified by KFTP, the supplier's has defined process control methods that meet KFTP's needs, requirements and expectations and have properly documented them during the PPAP submission process.
Reference the Production Part Approval Process (PPAP) and Advanced Product Quality Planning and Control Plan reference manuals for guidance on completing this procedure.

4. Supplier Responsibilities:

1. When shall a Control Plan be completed?
A. Submission is required for Level 3 or Level 5 PPAP, unless otherwise specified by the Authorized KFTP Representative (ACR) on the PSW.
B. Supplier shall review and update their Control Plans for all PPAP submission Levels.
C. Submission timing is in accordance with the PPAP Part Submission Warrant (PSW).
2. How should the Control Plan procedure be performed?
A. Supplier must treat the Control Plan as a "living document" and maintain it throughout the life of the product. The supplier's Process Flow Diagram, Process FMEA and Control Plan should be aligned.
B. Suppliers must test and analyze the process to obtain results which support the Control Plan contents.
C. Approval of the Control Plan used by the Supplier must be confirmed by more than one functional departments at Supplier. KFTP has the right to review and approve the document depending on the supplied component's risks.
D. Re-issuing is necessary for all revisions and must be approved by Supplier's Chain of command.
E. Revisions which require approval from KFTP must have the approval prior to shipment of parts reflecting the change.
F. Items requiring conformance to standard test methods should be indicated.
G. Supplier must address and identify all KFTP Special Characteristics on the Control Plan.
H. No process change, temporary or permanent, is allowed after the start of Mass Production unless a Supplier Change Request form has been submitted to KFTP and approved by KFTP.

5. Process Flowchart



1. Prupose	2. Application scope
To verify that all gages and test equipment are capable of accurate measurement.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP, when the MSA requirement is indicated on the PPAP Part Submission Warrant (PSW).

3. Explanation:

The main purpose of MSA is:
1. Quantify the amount of measurement error associated with a gage to determine if the gage is suitable for measuring a dimension of a certain tolerance (Gage R&R).
2. Quantify the accuracy and repeatability of a gage to assure accept / reject decisions based on dimensions measured by a supplier agree with accept / reject decisions when the same dimension is remeasured by KFTP.

The purpose of the Gage R&R study is to identify the amount of measurement error associated with a particular gage - producing a quantitative confidence level which can be evaluated. This GR&R value obtained should be the basis for decision on whether the gage should be replaced, repaired, operators trained, or no action taken. There are many methods for performing an GR&R study and also many ways of evaluating the results. The method described in this section is the Average and Range Method with Percent of Tolerance Analysis.

Reference the Production Part Approval Process (PPAP) and Measurement Systems Analysis (MSA) reference manuals for guidance on completing this procedure.

4. Supplier Responsibilities:

1. When should an MSA be performed?

A. Submission is required for all Special Characteristics for Level 3 or Level 5 PPAP, unless otherwise specified by the Authorized KFTP Representative (ACR) on the PSW.

B. All gages measuring Special Characteristics are required to have an acceptable MSA. An MSA shall be performed prior to submitting capability data.

C. Gage R&Rs shall be repeated after any change to a Supplier's measurement system and/or product design; including relocation of measurement equipment.

D. KFTP reserves the right to request gage MSAs to be performed on any equipment measuring and/or confirming product quality.

2. Who should perform an MSA?

A. Whenever possible, have the actual operators / quality inspectors that will be using the gage perform the measurements.

B. The analyst / observer responsible for the quality of an MSA submitted to KFTP must be competent in statistical techniques.

3. When should GR&R studies be performed?

A. Evaluating measurement techniques on a periodic basis. If gages are used, to decide if a part is in specification or not, with an unacceptable GR&R, there is a possibility that the parts are unacceptable and the gaging method will not detect the problem.

B. In conjunction with capability studies. The GR&R study should accompany capability studies submitted to KFTP Supplier Quality representative.

C. All gages measuring Critical Characteristics are required to have an acceptable Gage R&R performed. KFTP reserves the right to request gage R&Rs to be performed on any equipment measuring and/or confirming product quality.

D. Gage R&Rs should be repeated after any change to a Supplier's measurement system and/or product design; including relocation of measurement equipment.

2. Conducting the study:

A. Whenever possible, have the actual operators that will be using the gage perform the measurements.

B. Before a study is performed, ensure that the gage is calibrated.

C. Number all samples in a location not visible to the operators.

D. Let Operator A measure all samples in a random order for the first trial. Let Operator B measure all samples in a random order for the first trial. Let Operator C (if applicable) measure all samples in a random order for the first trial. Repeat this order and technique for each trial.

E. An alternate method may be utilized if the operators are on different shifts and cannot perform the study at the same time. Let Operator A measure all samples in a random order for the first trial. Let Operator A measure all samples in a random order for the second trial, and then again for the third (if applicable). Let Operator B perform these same steps at a different time, and Operator C at a different time (if applicable).

3. Analysis of Results:

A. Guidelines for acceptance of GR&R (P/T - Precision to Tolerance):

~ Under 10% error - Gage is O.K.

~ 10% to 30% error - Gage may be acceptable based upon the importance of the application, costs involved, etc……

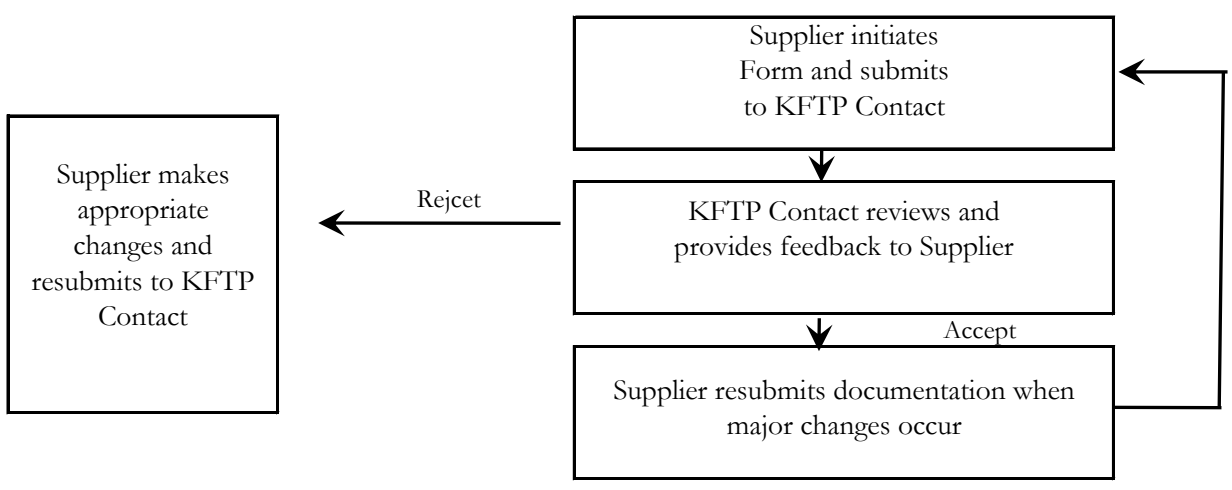
~ >30% error - Gage needs improvement. Efforts should be made to identify the problems and have them corrected.

B. % R&R is a combination of %OV and %EV. If the %RR is not acceptable, then each of these should be looked at independently to help in identifying the problems associated with the gage.

1.) For example, if Equipment Variation (EV) is large with respect to Operator Variation (OV) then possible problems are:
   a. The gage needs maintenance
   b. The clamping or location for gaging needs improvement.
   c. Other.....

2.) If OV is large with respect to EV, then possible problems are:

4. Process Flowchart



1. Prupose	2. Application scope
To provide evidence that dimensional verifications required by the design record and control plan have been completed and results indicate compliance design and customer requirements.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP, when the Dimensional Results requirement is indicated on the PPAP Part Submission Warrant (PSW).

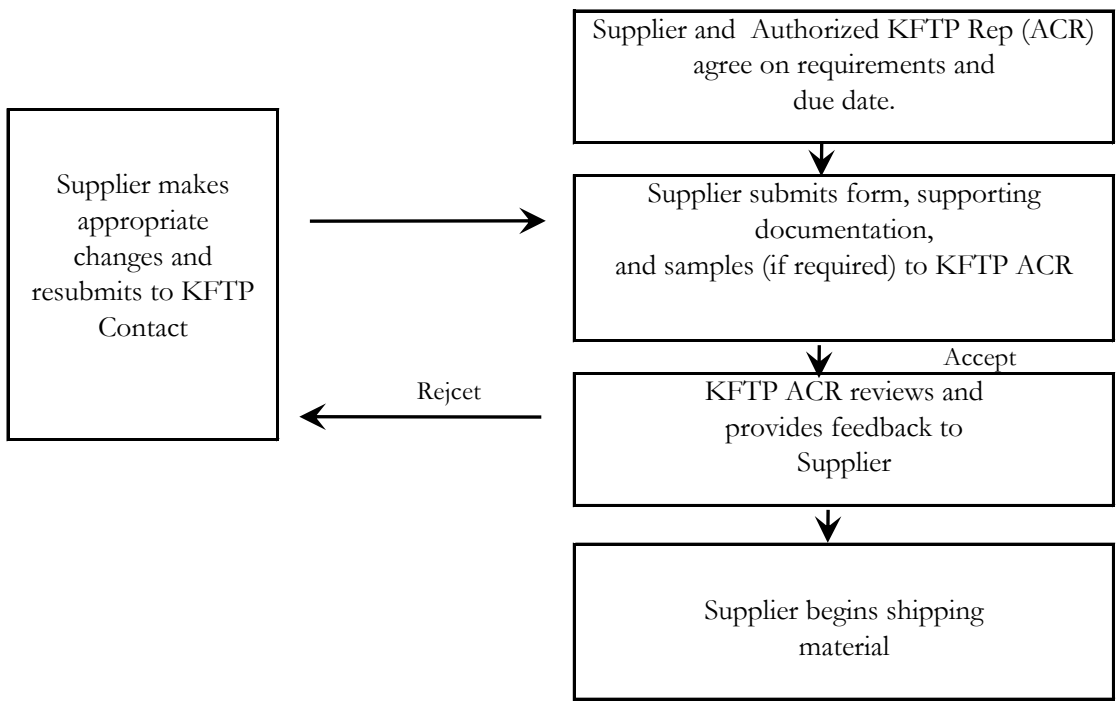
3. Explanation:

The purpose of the Dimensional Results PPAP requirement is to provide dimensional and/or functional confirmation of parts and/or material due to any significant change in the Supplier's process or during the launch process.
A successful Dimensional Results submission includes documented evidence of compliance for all Dimensions, Characteristics and Specifications pertaining to the submitted Sample Product (PPAP Element 14)
Note: This process is sometimes referred to as First Article Inspection (FAI) or as a Dimensional and Attribute Inspection (DAI), however it may also apply to situations other than first production articles.

4. Supplier Responsibilities:

1. When should the Dimensional Results PPAP requirement be performed?
A. Submission is required for Level 2, Level 3 or Level 5 PPAP, unless otherwise specified by the Authorized KFTP Representative (ACR) on the PSW.
B. Timing:
1. New Component - samples and data for new parts and materials shall be delivered to KFTP by the agreed upon date (may be specified on the purchase order or project action request).
2. Supplier Process Change - samples and data shall be delivered to KFTP by the date specified on the Supplier Process Change Request form or PSW.
A. This requirement shall be performed by or under the direction of the Supplier's Quality Assurance Organization; by trained personnel.
3. How should the Dimensional Results requirement be completed?
A. KFTP's Dimensional Results form or equivalent is required for recording data.
B. Ensure the Design Record is current. The latest KFTP drawing/specification should be used and noted on the results form.
C. Dimensional Results requirement should be completed on three (3) parts produced using the current production process, unless otherwise specified on the PSW.
D. Each part should be uniquely identified and referenced on the results form to facilitate the report review.
E. Supplier must indicate measuring technique and devices used to generate data. Use measuring instruments that are calibrated, with a Gage R&R (GRR) below 30%.
F. Submit KFTP drawing or specification (ES) with each dimension and numbered sequentially to match the data recorded on the form.
G. Measure/test all features on the drawings and specification, including notes. Record the actual results of the measurements/tests along with the target and tolerance or upper and lower specifications.
H. Identify Key Characteristics/Critical Features/Critical to Quality dimensions by beside the dimension.
I. Identify/highlight dimensions that are out of tolerance/specification. Submit root cause and corrective action plan.
J. The Supplier ships the sample parts with all appropriate Dimensional Results documentation directly to the Authorized KFTP Representative (ACR) referenced on the PSW.

4. Process Flowchart



Click Here to Move Back to Table of Contents

1. Prupose	**2. Application scope**
To provide evidence that material test and performance tests required by the design record have been completed and results indicate compliance to requirements.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP.

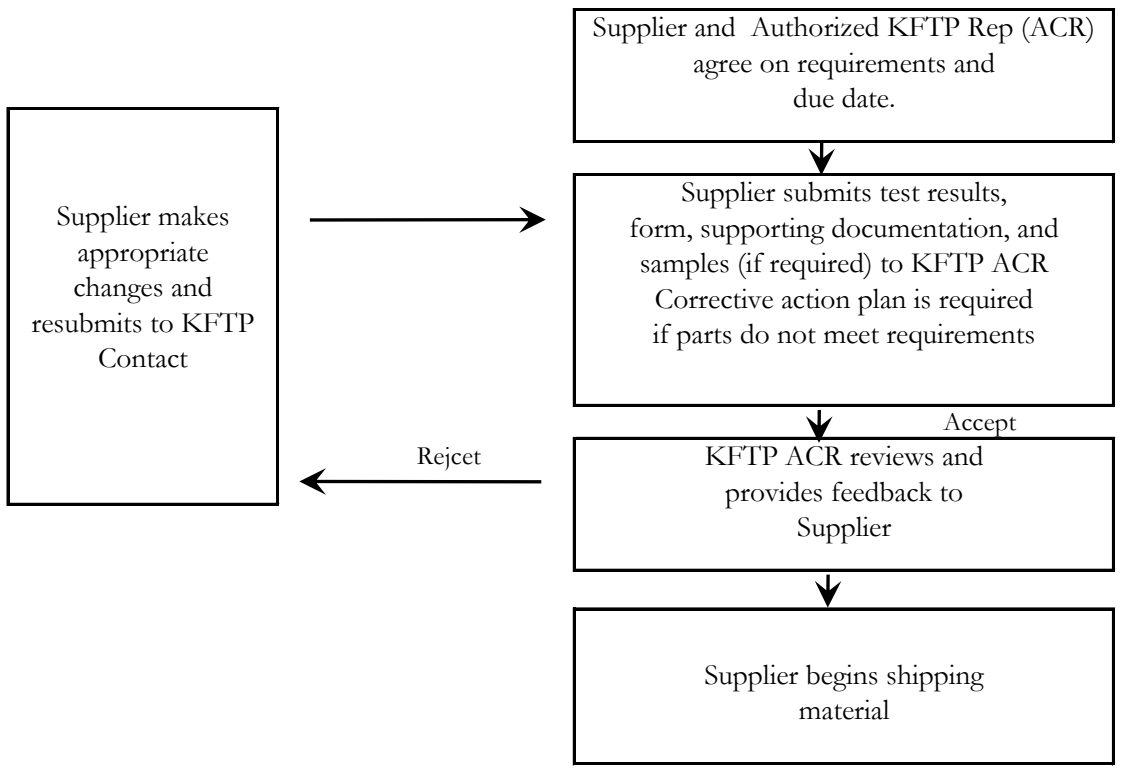
3. Explanation:

When Material and Performance Testing is specified in the Design Record (i.e. on the drawing or in the Engineering Specification), the supplier shall provide evidence of compliance.
Reference the Production Process and Product Approval (PPA) reference manual VDA 2 for guidance on completing this procedure.

4. Supplier Responsibilities:

1. When shall the Material and Performance Testing be performed?
A. Submission is required for Level 1, Level 2 or Level 3 PPA, unless otherwise specified by the Authorized KFTP Representative (ACR) on the PSW.
B. Supplier should have a plan to pass all specified testing before the PPA due date and prior to the first shipment of parts to KFTP.
2. How often shall be performed the Material and Performance Testing?
A.Within the at least 3-year repeated inspection (since the initial sampling) of all products and components delivered to the KFTP, a.s., it is necessary to prove the characteristics (particularly the function, material and geometry) to the full extent of the initial sampling. If the requalification is demanded in the period shorter than 3 years, this will be specified in the Agreement on Quality Demands for Purchased Part.
In case of the safety (D/TLD and other) characteristics the requalification is demanded once every 12 months.
This evidence must be provided to the KFTP, a.s. without being invited to do so and without any financial charge.
B.Delivered parts are naturally subject of further requalification tests – tests of assemblies performed by the KFTP, a.s., eventually by the final customer. If the tests are incompliant for poor quality of delivered parts, the supplier pays all expenses connected with the occurred discrepancy (repetition of the test etc.), and at the same time the complaint procedure can be started on the part of the KFTP, a.s. against the supplier regarding the parts delivered by the supplier since the last compliant test.

4. Process Flowchart



1. Prupose	2. Application scope
To determine if the production process is likely to produce product that meets customer requirements.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP, when the Initial Process Studies requirement is indicated on the PPAP Part Submission Warrant (PSW).

3. Explanation:

The purpose of the Initial Process Studies PPAP requirement is to ensure that, when specified by KFTP, any Initial Process Studies have been received and properly documented during the PPAP submission process.
The objective of an Initial Process Study is to ensure that the supplier has analyzed the stability and capability of the processes which contribute to variation in all Special Characteristics.
Reference the Production Part Approval Process (PPAP) reference manual for guidance on completing this procedure.

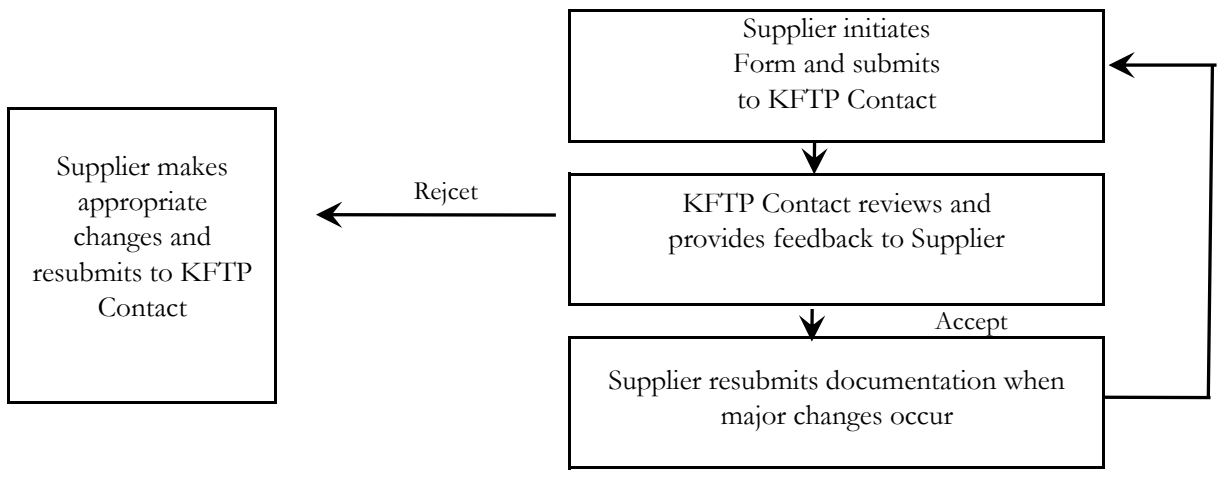
4. Supplier Responsibilities:

1. When shall Initial Process Studies be performed?
A. Submission is required for Level 3 or Level 5 PPAP, unless otherwise specified by the I Authorized KFTP Representative (ACR) on the PSW.
B. An Initial Process Study is applicable for all Critical Features, Key Characteristics or Critical to Quality (CTQ) features identified in the Design Record or specified on the PSW.
2. How should the Initial Process Studies process be performed?
1. Prior to start of production, the Supplier must analyze the stability and capability of the processes which contribute to variation in the Critical Features (Gage R&R studies must be conducted on critical features.)
2. For each designated characteristic, the Supplier must submit a process capability study with dimensional data to KFTP from final tooling. Refer to Table 1 for specific requirements.
3. Long term process capability studies are recommended for Supplier's continuous process improvement. The results of these studies should be made available to KFTP upon request. Refer to Table 1 for specific requirements.
4. Capability studies can be affected by Engineering Changes, Process Change Requests, Design Change Requests, or part tolerance changes and therefore must be re-submitted for characteristics affected by change.
5. If capability studies do not meet ≥1.33 then 100% inspection is expected by Supplier until ≥1.33 is achieved. The desirable inspection method is for the Supplier to perform 100% mechanical inspection for in-process controls with visual inspection as the last alternative.
6. Onsite verification may be performed by KFTP.

5.Table 1:

	Short Term Cpk	Long Term Ppk
Sample Size	30 minimum	≥ 50 or as required to determine variability source
Expectation	≥1.33, Stable	≥1.33, Stable
Attribute Data	Express in PPM, % Defective (Discuss expectation with KFTP Contact)	Express in PPM, % Defective (Discuss expectation with KFTP Contact)
If expectation is not	1. Process control method is required (ie: increased audit, SPC, 100% inspection, etc.)	
	Short Term Cpk	Long Term Ppk
Sample Size	30 minimum	≥ 50 or as required to determine variability source
Expectation	≥1.33, Stable	≥1.33, Stable
Attribute Data	Express in PPM, % Defective (Discuss expectation with KFTP Contact)	Express in PPM, % Defective (Discuss expectation with KFTP Contact)
If expectation is not	1. Process control method is required (ie: increased audit, SPC, 100% inspection, etc.)	

6. Process Flowchart



Click Here to Move Back to Table of Contents

1. Prupose	2. Application scope
To document that inspection and testing has been performed by a laboratory that is qualified for the type of measurement or tests conducted.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP, when the Qualified Laboratory Documents requirement is indicated on the PPAP Part Submission Warrant (PSW).

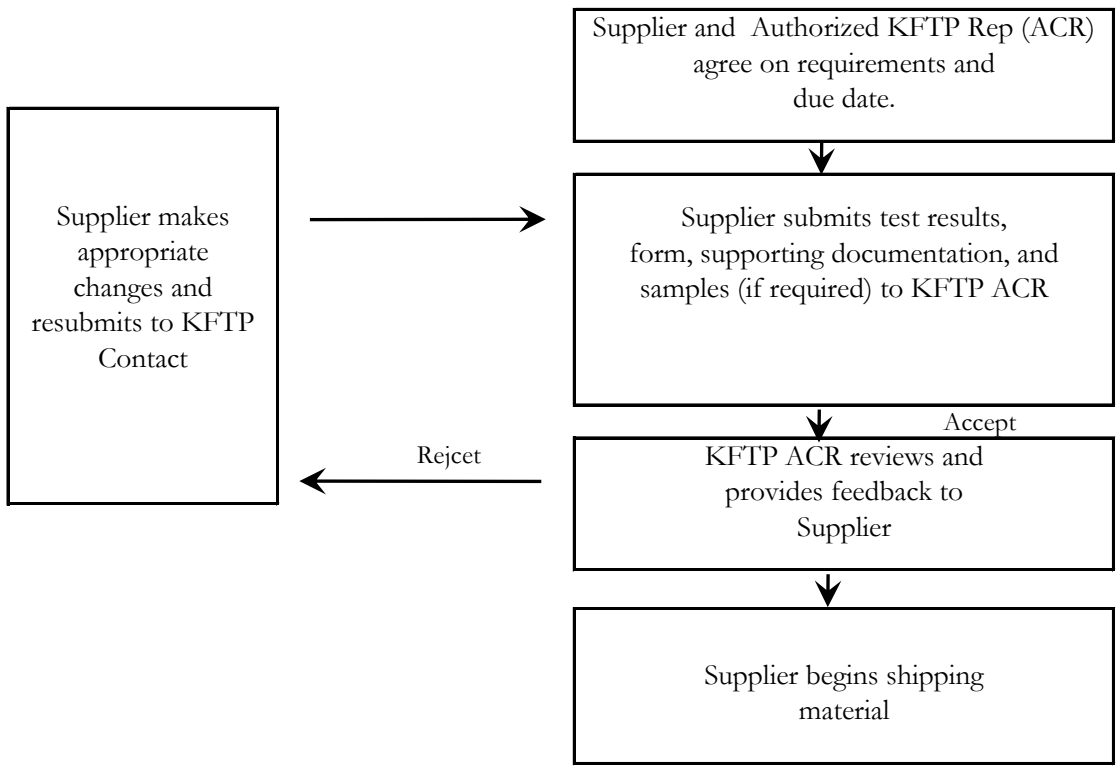
3. Explanation:

The supplier shall provide documentation showing that all laboratories used during the PPAP submission process, e.g. dimensional, materials testing, etc. are capable of performing the measurements required

4. Supplier Responsibilities:

1. When shall the Material and Performance Testing be performed?
A. Submission is required for Level 2, Level 3 or Level 5 PPAP, unless otherwise specified by the Authorized KFTP Representative (ACR) on the PSW.
2. How should the Qualified Laboratory Documents submission be completed?
A. If testing is performed in a Supplier's internal lab, provide a copy of the quality certification. If no quality certification exists, contact the KFTP ACR for guidance.
B. If an external lab is used, send a copy of outside lab certification and the scope of accreditation.
C. Supplier should indicate which lab was used for each applicable PPAP requirement.

4. Process Flowchart



1. Prupose	2. Application scope
To demonstrate that parts meet appearance requirements on the design record and control plan.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP, when the Appearance Approval Report requirement is indicated on the PPAP Part Submission Warrant (PSW).

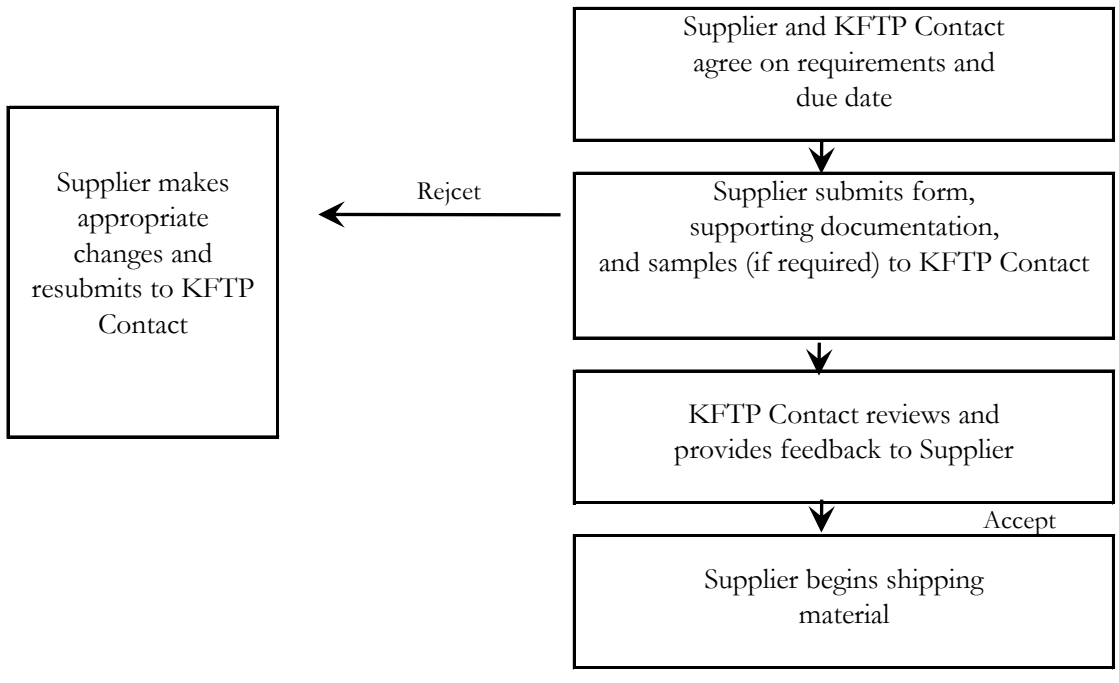
3. Explanation:

The purpose of the Appearance Approval Report (AAR) PPAP requirement is to ensure that, when specified by KFTP, any Appearance requirements on the Design Record are addressed and properly documented during the PPAP submission process.
Reference the Production Part Approval Process (PPAP) reference manual for guidance on completing this procedure.

4. Supplier Responsibilities:

1. When shall the Appearance Approval Report submission be performed?
A. Submission is required for all PPAP submissions, when explicitly requested by the Authorized KFTP Representative (ACR) on the PSW.
B. Supplier parts must meet the criteria described in the Appearance Approval Report.
B. Contact KFTP representative if there are any questions concerning the Appearance Approval Report.

5. Process Flowchart



1. Prupose	2. Application scope
A sample part provides the customer a tangible product to review along with the PPAP documentation. The Sample Parts requirement is typically met in conjunction with the Dimensional Results requirement.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP, when the Sample Product requirement is indicated on the PPAP Part Submission Warrant (PSW).

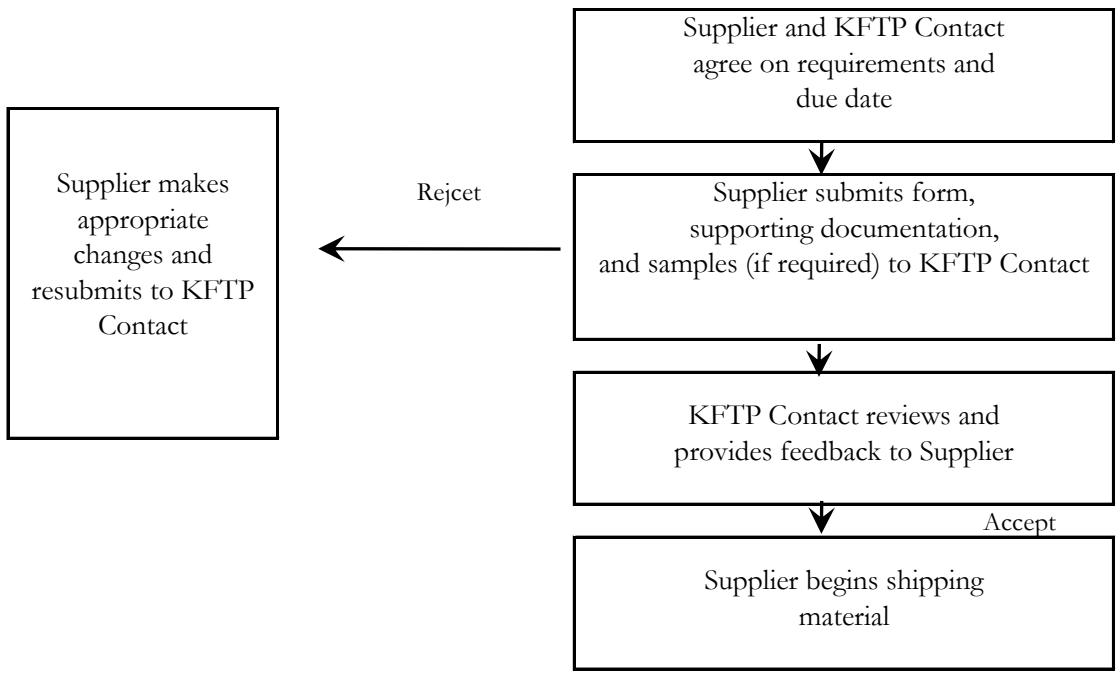
3. Explanation:

The purpose of the Sample Product requirement is to ensure the supplier's production process (including handling, packaging, delivery) meets KFTP's expectations. Reference the Production Part Approval Process (PPAP) reference manual for guidance on completing this procedure.

4. Supplier Responsibilities:

1. When shall the Sample Product procedure be performed?
A. Typically, the Sample Product is integral to the Dimensional Results submission process.
2. How should the Sample Product procedure be performed?
A. This requirement is met by fulfilling the Dimensional Results requirement.

5. Process Flowchart



Click Here to Move Back to Table of Contents

1. Prupose	2. Application scope
The purpose of the master sample is to retain the initially approved production standard for future reference.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products toKFTP. Master sample are only required when explicitly requested by the KFTP ACR via the PPAP Part Submission Warrant (PSW).

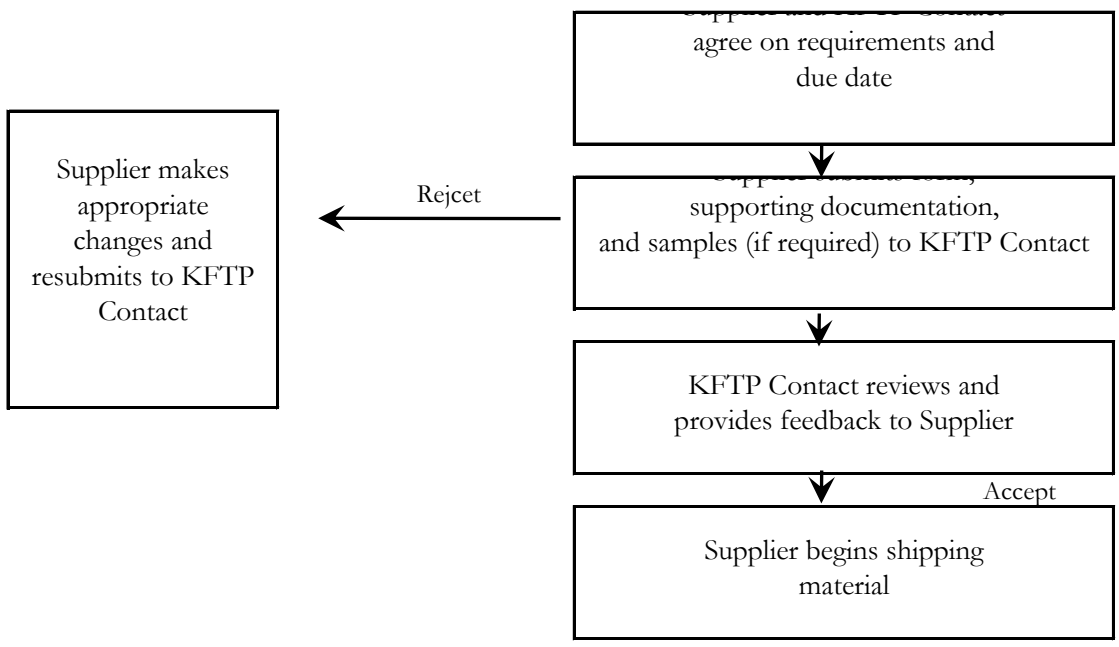
3. Explanation:

If requested by the KFTP ACR, the supplier shall create and retain a master sample of the latest approved engineering level for each part number until that design is replaced by a new design level. The master sample shall be identified with part number, revision level, and approval date. Where multiple tools are used, a master sample may be required for each tool, mold, or cavity. Specific requirements should be discussed, then documented on the request for PPAP.
Reference the Production Part Approval Process (PPAP) reference manual for guidance on completing this procedure.

4. Supplier Responsibilities:

1. When are master samples required?
A. A master sample is required when explictly requested by the Authorized KFTP Representative (ACR) on the PSW.
2. Who shall manage the master samples?
A. The Supplier's Quality Assurance Organization should retain the master samples and manage them like a controlled document.
3. How should the master sample process be performed?
A. The supplier shall retain the part used for the dimensional inspection results that represents initial production for the current design level. Part should be identified with part number, design level, and approval date.

5. Process Flowchart



Click Here to Move Back to Table of Contents

1. Prupose	2. Application scope
Checking aids are submitted with the PPAP documentation to gain agreement that these properly distinguish acceptable and non-acceptable product.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP.

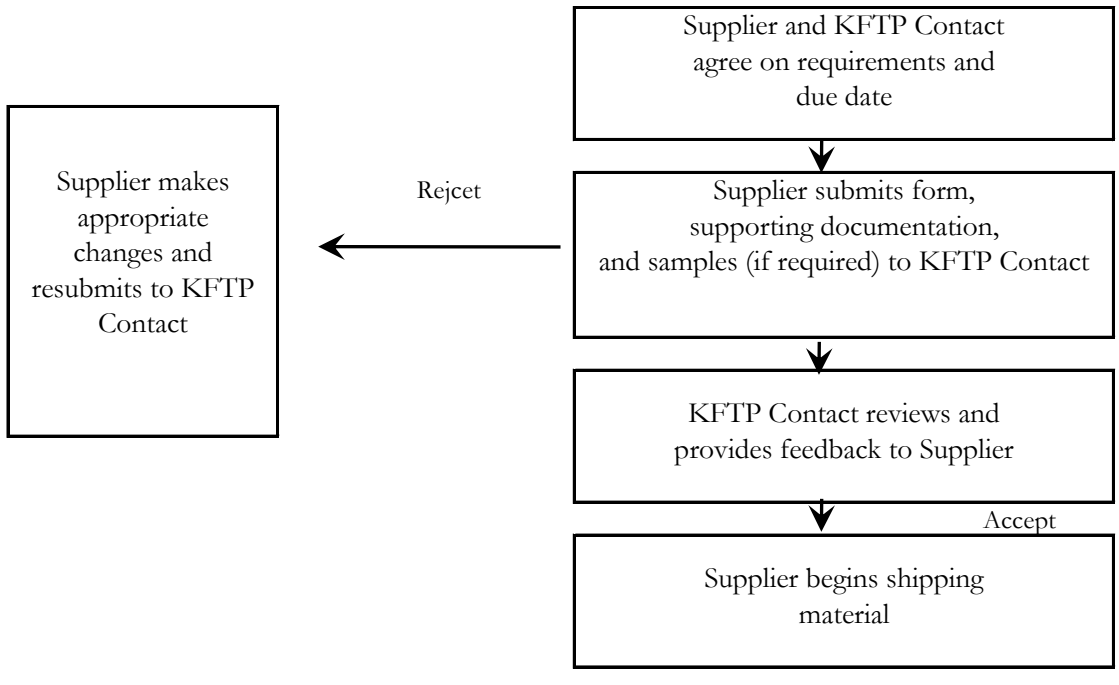
3. Explanation:

If requested by the KFTP ACR, the supplier shall submit any part-specific assembly or component checking aid for review. Specific requirements should be discussed with the KFTP ACR, then documented on the PPAP Part Submission Warrant (PSW).
Reference the Production Part Approval Process (PPAP) reference manual for guidance on completing this procedure.

4. Supplier Responsibilities:

1. When shall the Checking Aids procedure be performed?
A. Submission is required when explictly requested by the Authorized KFTP Representative (ACR) on the PSW.
2. Who shall perform the Checking Aids procedure?
A. The Supplier's Quality Assurance Organization should maintain and part-specific checking aids and manage them like a controlled document.
3. How should the Checking Aids procedure be completed?
A. If requested, arrangements shall be made with the KFTP ACR to review and approve part-specific checking aids for the part under PPAP consideration.

5. Process Flowchart



General requirements

Specified parameter	**Requirement of KFTP**	**Method of recording**
QMS	ISO TS 16 949 till 14.09.2018 , after 14.09.2018 ISO 9001:2015 and IATF 16949:2016 certified by an accredited 3rd party or VDA 6.1 certified by customer	Valid certificate
Overall Performance Monitoring	A grade within one year	Performance Monitoring report
ppm (number of non-conform parts per 1 million delivered during last 6 months)	max. 10 (target to achieve A grade)	Evaluation of suppliers
Sampling	VDA 2	PPA report Reference samples (OK pieces) properly approved on behalf of KFTP (quality dept.)
Special requirements to documentation	CC requalification – once a year (if applicable)	Records of supplier
	D/TLD self-audit according to Formel Q qualification – once a year (Only applicable for suppliers delivering components that can affect personal safety)	Records of supplier
	Product audit and requalification other parts once during 3 years	Records of supplier
	Internal process audit according to Formel Q qualification – once a year	Records of supplier
Changes in processes in supplier site	Verification according to Formel Q – New parts - integral PPA – submission level agreed with quality department KFTP	PPA , Protocol from audit
Complaint procedure	Termporary action within 24 houres Permanent action within 5 days	8D report
Service campaign Explanation: The number of vehicle recalled after zero Km/miles due to a reliability/warranty problem.	0	Customer portal
Safety recall Explanation: The number of vehicle recalled after zero Km/miles due to a Safety problem.	0 This is a MUST (non-negotiable)	Government portal
Delivery precision Explanation: A percentage: The quantity of parts delivered on time divided by the total delivered.	95% as a minimum requirement. 100% For delivery in sequence.	Performance Monitoring report
Proof of capability	Short-term capability cm/cmk >= 1.67 Interim process capability pp/ppk >= 1.67 Long-term capability cp/cpk >= 1.33	SPC chart

1. Prupose	2. Application scope
On completion of all part approval requirements, a PSW is the formal request for approval of the product, supported by the data and documentation in the PPAP evidence file.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP when a Part Submission Warrant (PSW) is requested.

3. Explanation:

The Part Submission Warrant document defines the process, responsibilities and deliverables for introducing new or revised components to KFTP. It is intended to help Suppliers successfully achieve or increase the quality of the product design as components are developed or changed.

4. KFTP Responsibilities:

The Authorized KFTP Representative (ACR) will submit a Part Submission Warrant detailing:
A. Part Information:
1. Part Name, Supplier Part Number and KFTP Part Number.
2.KFTP Purchase Order Number
3. Referenced KFTP Engineering Specs
4. Engineering Change Level (Drawing Revisions)
5. Additional KFTP Engineering Changes
6. Critical Characteristics are Identified in the Design Record? (Yes/No)
7. List of Affected KFTP Facilities
B. Supplier Information
C. Authorized Customer Representative Information
D. Reason for Submission
E. Requested Submission Level

5.Supplier Responsibilities:

The Authorized Supplier Representive will:
A. Supplier Acknowledgement and Acceptance:
1. Sign this section and return to KFTP ACR. This attests that the supplier has reviewed and understands the PPAP requirements.
B. Submission Results:
1. Specify what aspects of the PPAP requirements are being fulfilled by this PSW submission.
2. Check appropriate box signatyfing that submission results meet all requirements specified in the Design Record. Any exceptions must be noted in the Declaration Explanation/Comments below.
3. Complete the PPAP Checklist
C. Declariation:
1. Specify what aspects of the PPAP requirements are being fulfilled by this PSW submission.

6. Disposition:

On receipt of a signed PSW Declaration by the Authorized Supplier Representative, the PPAP submission will be reviewed by the designated PPAP team and will be dispositioned.The Authorized Customer Representive will mark the completed PSW as:
A. Approved:
All PPAP submission requirements have been fulfilled, including an approved Early Launch Containment plan.
B. Rejected:
One or more PPAP submission requirements have not been met. The supplier must take appropriate corrective action and then resubmit the PSW. The submission shall be approved before production quantities may be shipped.
C. Interim Approval:
One or more PPAP submission requirements have not been met, but the supplier is authorized to ship materials for production requirements on a limited time or piece quantity basis.
Interim Approval will only be granted upon receipt of action plan, approved by the ACR, to obtain PPAP approval.

Click Here to Move Back to Table of Contents

1. Prupose	2. Application scope
These are modified PPAP requirements that apply to Bulk Materials. These are minimum requirements and may be amended by the customer based on application and need.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP. The Bulk Material Checklist is not required unless explitily requested on the Part Submission Warrant. Refer to part specific PPAP requirements from the KFTP ACR.

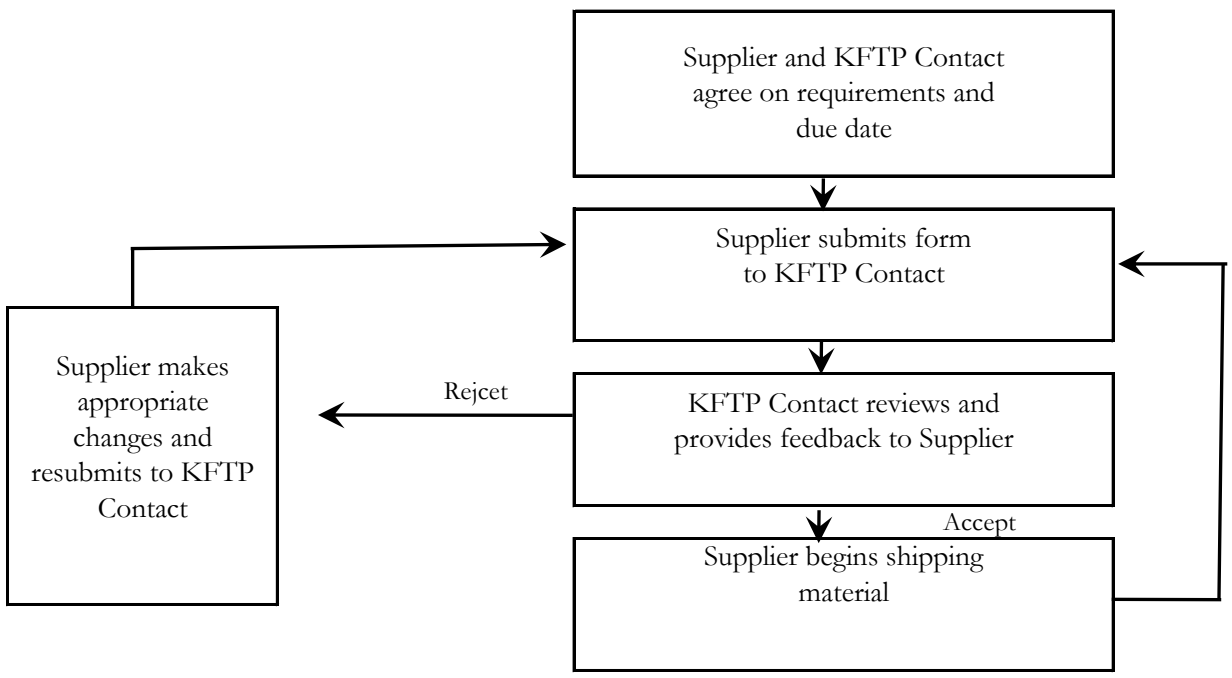
3. Explanation:

If requested by the KFTP ACR, the supplier shall submit a Bulk Material Checklist. Specific requirements should be discussed, then documented on the PPAP Part Submission Warrant.
Reference the Production Part Approval Process (PPAP)1 reference manual for guidance on completing this procedure.

4. Supplier Responsibilities:

1. When is a Bulk Material Checklist required?
A. Submission is required when explictly requested by the Authorized KFTP Representative (ACR) on the KFTP PSW.
2. How should the Bulk Material Checklist be completed?
A. Contact the responsible KFTP ACR for Bulk Material Checklist document and completion requirements.

6. Process Flowchart



Click Here to Move Back to Table of Contents

1. Prupose	2. Application scope
To explain the First Article Inspection (FAI) and submission procedure. This is the initial stage confirmation of new parts and/or materials produced on mass production tooling. The parts and/or materials are to meet KFTP drawings and specifications.	Applies to Suppliers of new production parts, raw materials, service parts and sourced products and can also be used in conjunction with the Supplier Process Change Request (including sub-supplier changes) and Design Changes.

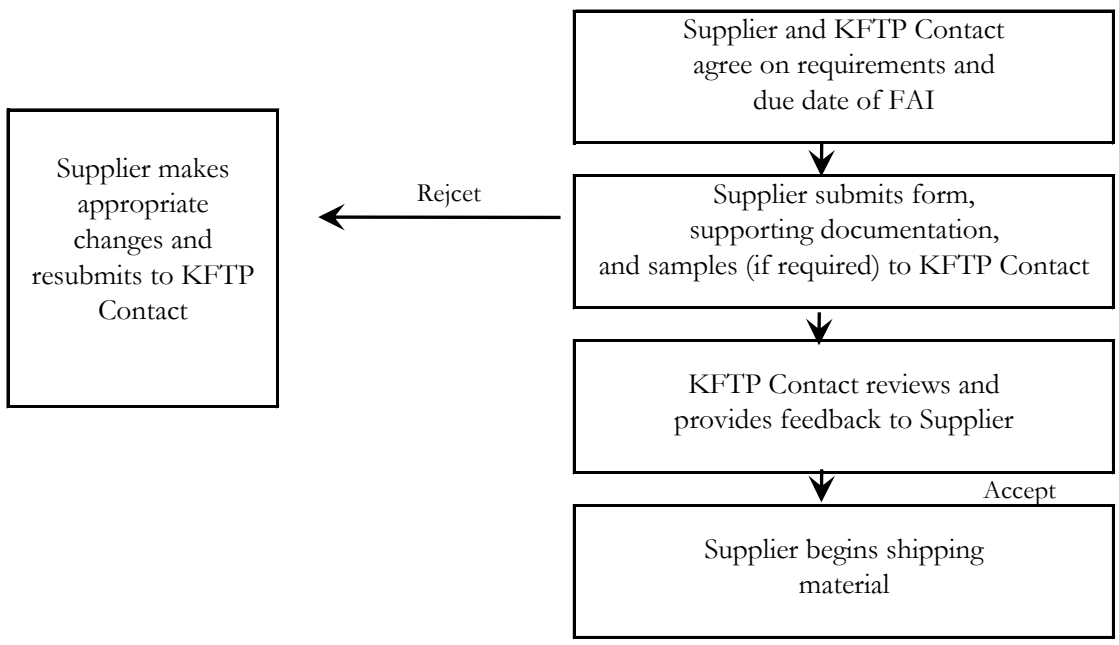
3. Explanation:

This is to provide dimensional and/or functional confirmation of parts and/or material due to any significant change in the Supplier's process or during the launch process.

4. Supplier Responsibilities:

1. KFTP's FAI form is required for recording data.
2. Date of submittal of FAI Samples:
   A. New Component - FAI samples and data for new parts and materials shall be delivered to KFTP by the agreed upon date (May be specified on the purchase order).
   B. Supplier Process Change - FAI samples and data shall be delivered to KFTP by the date specified on the Supplier Process Change Request form.
3. FAI part sample sizes for raw materials, quantity or weight will be determined by KFTP.
4. FAI Sample Identification:
   A. The supplier produces and measures the FAI as required by KFTP.
   B. The supplier identifies parts and includes drawing revision number, date, quantity, part number, part name, Supplier name, and reason for submission (process change, new component, etc.).
   C. The Supplier ships the parts with all appropriate FAI documentation directly to KFTP contact.
5. Submit KFTP drawing with each dimension ballooned and numbered sequentially to match the data recorded on the form.
6. Supplier must indicate measuring technique and devices used to generate data.

5. Process Flowchart



1. Prupose	2. Application scope
The Supplier Process Audit (SPA) provides the opportunity for the KFTP ACR to see the process and product in addition to the PPAP documentation. SPA's are usually performed for higher risk components.	Applies to Suppliers of production parts, raw materials, service parts, and sourced products when deemed necessary by the responsible KFTP division.

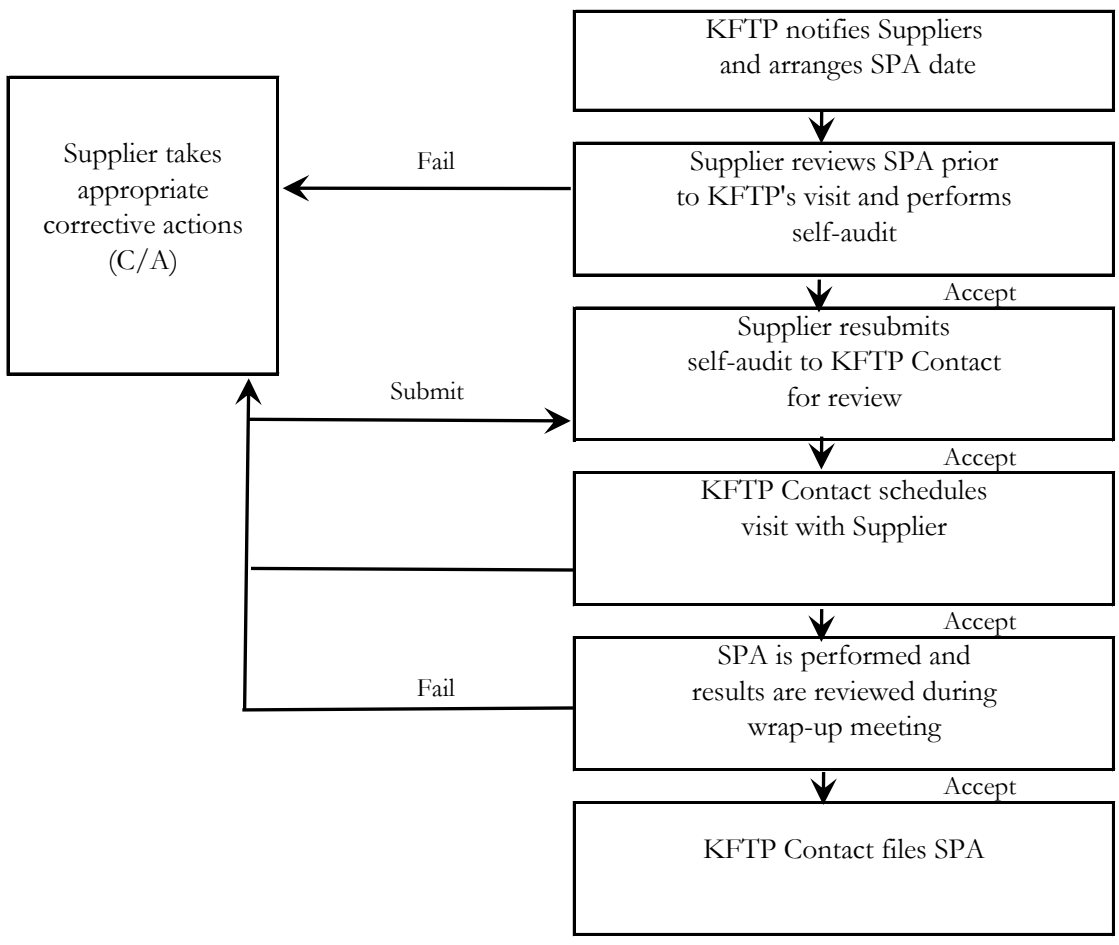
3. Explanation:

The SPA visit should occur after FAI, but before start of production. The visit is to confirm the Supplier has completed all activities necessary to ensure a smooth start up of production with a minimal amount of defects / problems.

4. Supplier Responsibilities:

1. When shall a Supplier Process Audit be completed?
A. The Supplier Process Audit will be conducted for a Level 5 PPAP, unless otherwise specified by the KFTP Authorized Customer Representative (ACR).
B. The Supplier Process Audit will be conducted after the Supplier submits a completed and signed Part Submission Warrant (PSW).
2. Who shall perform the Supplier Process Audit procedure?
A. This requirement shall be performed by the Supplier's Quality Assurance Organization.
3. How should the Supplier Process Audit procedure be performed?
A. The Supplier must submit all documentation to KFTP for review prior to the SPA.
B. The Supplier must be prepared to address and show evidence of all items contained in the Supplier Process Audit.
C. KFTP will conduct the SPA and representatives from the Supply Chain, Engineering, Materials and Quality departments may attend and may have additional audit items.
D. The SPA visit will consist of the following items:
1. Current status of the project (ie: tooling status, equipment installation, training, etc.)
2. Actual Audit
3. Review of the audit results
E. KFTP will issue a report to the Supplier summarizing the results of the visit. The report will show all items requiring countermeasures by the Supplier (any item shown as needing improvement or unacceptable on the checklists). The Supplier is responsible for responding promptly with countermeasures and due dates for all items.
F. The necessity for a follow up visit will be decided once the response is received and evaluated. If the problems found are considered serious and countermeasures are inadequate, the start of production may be delayed at KFTP's discretion. A follow up visit is mandatory if start of production is delayed.

5. Process Flowchart



Click Here to Move Back to Table of Contents

1. Prupose	2. Application scope
To explain the Capacity Demonstration Review (CDR) expectations.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products when deemed necessary by the responsible KFTP division.

3. Explanation:

The CDR is a tool to verify that the Supplier's production process can meet KFTP's capacity planning volumes with quality parts. If the production process fails to produce enough quality parts to meet the quoted tool capacity on the tooling order, the supplier should continue to work on improving process capability.

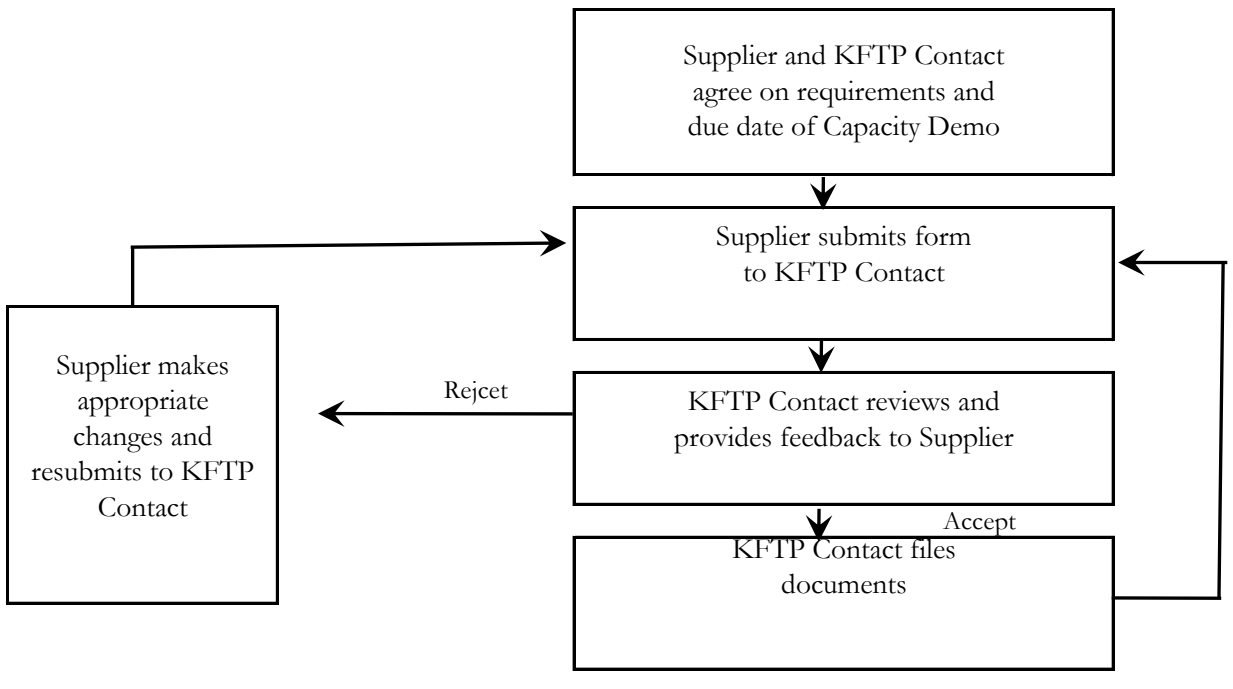
4. Supplier Responsibilities:

1. KFTP will decide which Supplier will be selected for CDR.
2. KFTP will contact and schedule the review with the supplier and key program team members, including those that participated in any launch readiness reviews.
3. The CDR must be conducted at the selected supplier's manufacturing site with all production intent tooling, equipment, environment, personnel, facilities, cycle times, safety and support systems.
4. Although the CDR should be conducted as early as possible, a key consideration in scheduling the review is the stability of the design.
5. The CDR run quantity/volume will be pre-determined and agreed upon between KFTP and the Supplier. The agreed upon quantity should, at a minimum, produce enough quality parts to meet KFTP's planned daily production volume. If the production equipment is not dedicated to producing the parts of interest, tool changeover may be included in the review. It is also recommended that the review include normal operator breaks, planned downtime, and changes in operators, perishable tools, raw material lots, etc. where economically feasible. Some sources of variation, i.e. operator & raw material changes, can be artificially introduced into the review.
6. The Supplier should use the checklist provided below in this document to proactively prepare for KFTP's visit. It is recommended the Supplier complete the checklist at least 3 weeks prior to KFTP's visit.
7. Overall Equipment Effectiveness (OEE), Run-at-Rate, or Capacity worksheets (attached) should be used to summarize the results of the CDR.8. Unsuccessful CDRs require Supplier action plans to correct the deficiencies and rescheduling of the CDR. Unsuccessful reviews should also be brought to the attention of the KFTP Buyer, KFTP Quality Director and the Program Launch Team.

5. Supplier Check List:

1. Tier 2 Readiness:
   - A. Were subcontractor's abilities to meet the customer's quality and capacity requirements confirmed by the supplier through a CDR prior to the official customer CDR being conducted at the supplier's facility? KFTP has the right to review the subcontractor's results and documentation.
2. Production Representation:
   - A. Is the product being manufactured at the production site using the production tooling, gaging, process, materials, operators, environment, and process setting?
   - B. Does the actual process flow agree with the process flow diagram? Does it represent the entire process from receiving through shipping?
3. Quality System:
   - A. Is all in-process documentation in place (ie: Process Flow, Control Plan, PFMEA, and First Article)?
   - B. Does the actual process agree with the process control plan?
   - C. Are operators trained to perform production part checks and statistical monitoring as outlined on the process control plan?
   - D. Are production master samples (or acceptance/rejection criteria in the form of a layout report) avaliable at required work stations?
   - E. Is the incoming/out-going material qualifaction in place and sufficient?
   - F. Are preventative maintenance plans (with planned downtime) in place?
   - G. Are repair and maintenance parts avaliable (e.g. key equipment spare parts)?
   - H. Are all production checking fixtures complete, with acceptable measurement system studies (i.e. Gage R&R) performed?
   - I. Are all in process gaging and controls complete, functional, and in place?
   - J. Has the packaging been finalized?

6. Process Flowchart



1. Prupose	2. Application scope
To protect the customer during and immediately after a new or changed product by implementing additional controls in the manufacturing plant.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP, when the Early Launch Containment requirement is indicated on the PPAP Part Submission Warrant (PSW).

3. Explanation:

The purpose of Early Launch Containment PPAP requirement is to ensure the condition of early shipments of mass production parts meets KFTP requirements during the ramp-up or supplier process change. The first mass production shipment must be at the current engineering level, quality standard requirements and built on mass production tooling.

4. Supplier Expectations:

1. When should ELC be performed?
A. Early Launch Containment is required for all Levels of PPAP, unless otherwise specified by the AuthorizedKFTP Representative (ACR).
B. During the initial start of production ramp-up and/or the Supplier Process Change Request, the Supplier may be requested to undertake activities to ensure that quality and process standards are met.
C. The Supplier may be requested to develop and implement an ELC plan during the ramp-up period. The ELC plan may cover items found on the Supplier's control plan though required inspection rates may be higher during early stage. Also it can include other items which are critical for successful implementation of new processes.
2. Who should perform ELC?
A. The Supplier will be requested to identify a person which is responsible for the ELC process.
3. How should ELC be performed?
A. The ELC evaluation applies to the first 1,000pcs , at a minimum, for products or raw materials supplied to KFTP (Exceptions must be discussed and agreed upon with theKFTP Quality Representative. KFTP may require more rigorous ELC actions depending on the risk and critical nature of some components.).
B. The supplier may be requested to attach a communication sheet onto each pallet which is signed and dated by the person performing the extra containment activity verifying that ELC requirements have been met unless other arrangements have been agreed upon by the KFTP Main Contact.
C. Suitable goals and targets should focus on defect prevention and quick resolution of production and production control issues which would impact the Supplier making shipments to KFTP.
E. Weekly updates summarizing the production performance (ie: defects, scrap, first-time yields, rework, etc.) may be requested for submission to the KFTP Quality Managers during the ELC phase.

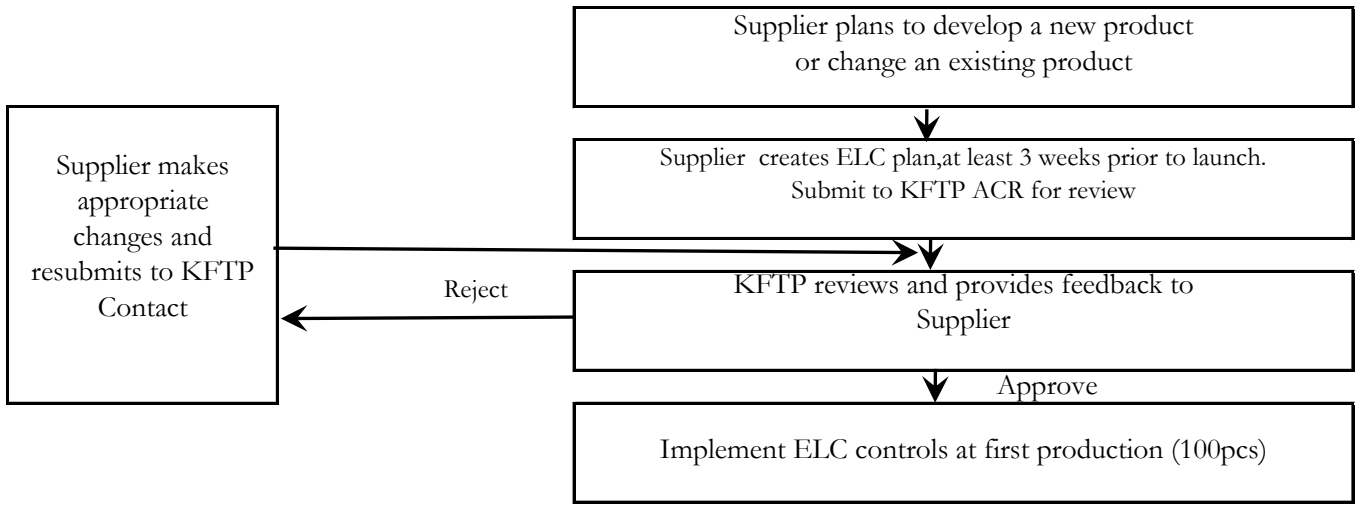
5. Examples of ELC items:

Depending on production process additional controls may include, but are not limited too:
a. Increased frequency/sample size of receiving, in-process, and or shipping inspections
b. Mandated sub-supplier containment and or sub-supplier support/audits
c. Addition of inspection/control items
d. Increased verification of label accuracy
e. Enhancement of process controls/error-proofing
f. Error-proofing validation through introduction of known controlled defects (ie: Master Part)
g. Increased involvement and visibility of top management
h. Prompt implementation of containment and correction when non-conformances are discovered.
i. Identification of the measurement equipment and data collection devices/activities to be used where applicable.
j. Additional reliability testing above and beyond the normal test requirements.

6. Exit Criteria:

a. Self-Exit Criteria – The supplier ships the required quantities for the duration specified with no non-conformances or no Supplier Corrective Action Requests (SCARs).
b. If the supplier does not meet the self-exit criteria and ships KFTP defective product; immediate corrective action must take place. Once the corrective actions are implemented and approved in the SCAR system then the clock will be restarted and the supplier must maintain zero defects for the duration stated in 3d above.
c. In the event the self-exit criteria has been met but the ELC plan continues to identify additional non-conformances, immediate corrective action must take place. The ELC plan is required until the process controls and capabilities have proven effective and are validated. Once the corrective actions are implemented the clock will be restarted and the supplier must maintain zero defects for the duration stated in 3d above.

7. Process Flowchart



Click Here to Move Back to Table of Contents

1.Prupose	2. Application scope
To define the minimum expectations of the Supplier's responsibility in controlling the quality of their Sub-Suppliers.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP

3.Explanation:

On a continual basis, supplier performance is monitored by the following key performance parameters: audit result, claim level, claim response, management systems, flexibility,Delivery Reliability– Receive vs Order /Just In Time, Panelty for major supply disruptions,Price level,Payment Terms.
KFTP maintains a scorecard of the quality,price, delivery performance for each supplier that delivers parts to a KFTP facility. The measurements on this scorecard are monthly reviewed to track supplier performance and identify negative trends. This information is available for supplier review (e-mail notification). It is recommended that suppliers review this information on a regular basis. Regular review of their performance data allows suppliers to take action to address problems and trends before KFTP is required to take action with the supplier. The scorecard shows information for a month, but ratings of a supplier's performance are based on a six month rolling average.

4. Supplier Responsibilities:

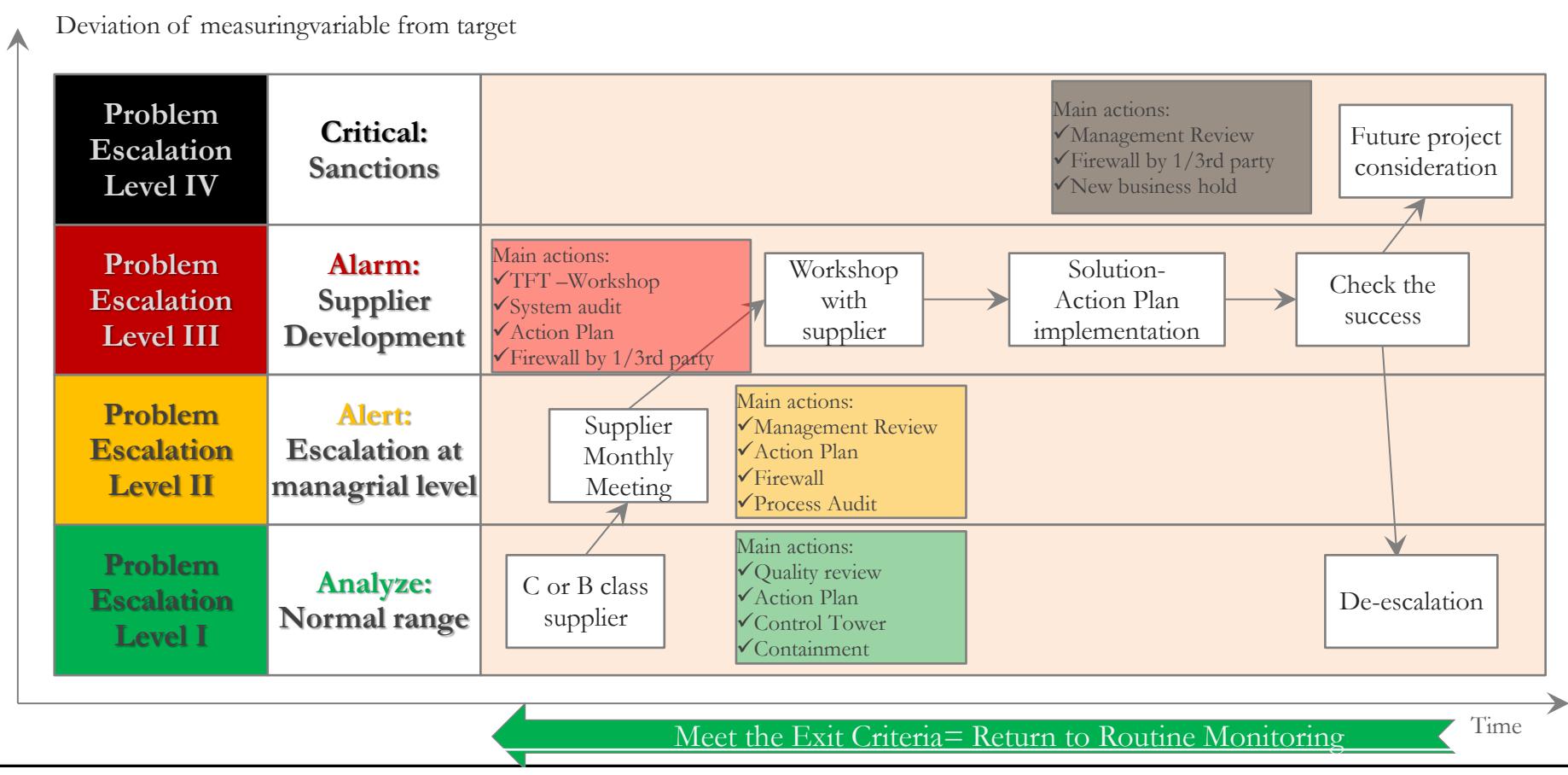
1. The Supplier should have a system in place for evaluating, selecting and on-going monitoring of Sub-Suppliers.
2. The Supplier must develop quality requirements with the Sub-Supplier to support the Supplier's Control Plan.
3. Suppliers are expected to involve Sub-Suppliers in the communication, planning, and problem solving activities (as required) to assure quality is built into every stage of production.
4. Suppliers have the ability to establish the degree of control placed on the Sub-Supplier based on how critical the Supplier's product is to KFTP's product /process.
5. Suppliers are responsible for assuring that countermeasures are in place to prevent repeat failures at Sub-Suppliers. Boundary Samples should be clearly defined between the Supplier and Sub-Supplier (as required).
6. KFTP reserves the right to audit Supplier and Sub-Supplier's facilities.Process audit is a tool for continual improvement and we ask our suppliers to build a robust improvement plan to close the gaps identified during the process audit.
7. In order for the Supplier to change or add a Sub-Supplier, they must first receive approval from KFTP before implementing the change. Suppliers must verify with their KFTP Contact whether the proposed change would result in a Supplier Design or Process Change Request and submit the proper supporting documentation as is specified by KFTP (refer to section 21, Supplier Process Change Request, for details).
A minimum of 2 weeks prior to the planned implementation of the change the Supplier should communicate its intentions to KFTP. The Supplier should, however, plan well in advance of this since considerations of the request by the relevant departments at KFTP may take considerably longer than 2 weeks to occur.
8. Extra Sub-Supplier quality controls may be required by KFTP, please work with KFTP Contact to define and understand expectations.

5. Low Performing Supplier - LPS

1. The goal of the Low Performing Supplier (LPS) process is to: Identify, Initiate and Drive Quality improvement activities with KFTP suppliers.Drive the responsibility on the supplier to monitor and improve their quality performance.
2. The Low Performing Supplier Process (LPS) will be implemented and managed through the monitoring of defined performance parameters. When a measurement parameter indicates the beginning of a negative performance trend or significant abnormality, the supplier case is considered for elevation into LPS for detailed analysis and action.
3. Supplier improvement activities will be initiated and managed through a four-stage performance improvement evaluation process. Each stage will have identified actions and entry/exit criterion in order to establish a basis for measuring improvement activity.

4. If the supplier does not meet his exit criteria by the completion date or if the quality situation becomes worse, they will be elevated to the next LPS stage level
Each time the supplier reaches a higher stage, the actions to be achieved will be those of the stage before, plus some additional actions.
If the exit criterion is met, for a specific stage, the supplier is moved back to the no action required (monitoring) status.

6. Process Flowchart



Click Here to Move Back to Table of Contents

1.Prupose	2. Application scope
To inform the Supplier of nonconforming parts/materials (manufacturing, workmanship, packaging, etc.) which requires implementation of countermeasures and corrective actions.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP

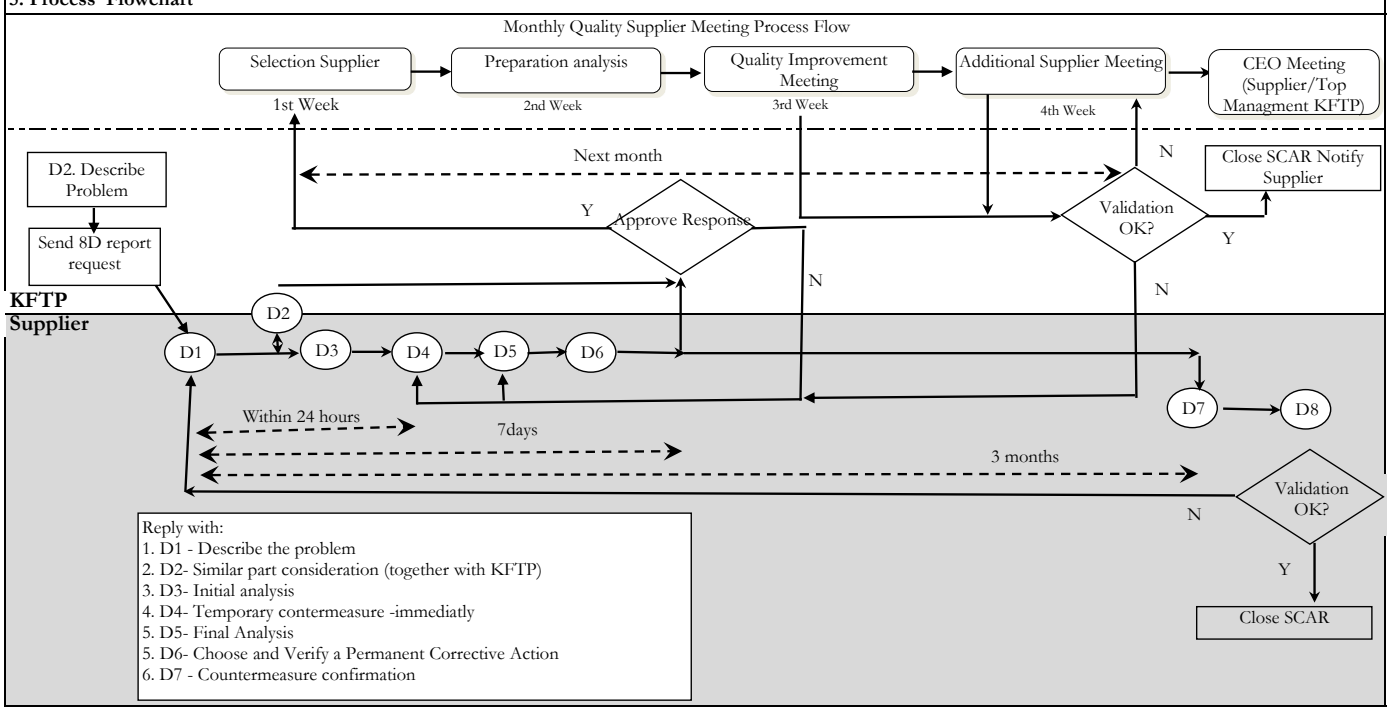
3.Explanation:

This procedure applies to quality failures and delivery issues with production parts and raw materials detected at KFTP and/or KFTP's Customer.

4. Supplier Responsibilities:

1) KFTP's SCAR formats must be be used for reporting corrective actions to KFTP in accordance with 8D methodolgy:
#D0 - Establish the team - supplier should designate Team Leader who will be contact person (phone, email).
#D1 - Describe the problem- basic problem description is provided by KFTP, but suppler should develop the problem description using Is/Is Not Worksheet.
#D2- Before supplier implement Temporary action should consider similar parts,process,plants
#D3-Initial analysis -During the investigation of the problem should be performed analysis where the problem have to be detected. Use the 5 why's method to investigate why the problem was not detected.
#D4- Temporary countermeasures - immediate-an Immediate Corrective Action (ICA) is any action that prevents both internal & external customers from experiencing the symptoms of one or more problems until a Permanent Corrective Acion can be implemented
#D5- Final Analysis -Define and Verify the Root Cause-Final Analysis-D5 provides the opportunity to test each root cause theory against the problem description by isolating and verifying the root cause. Also at D5, users isolate and verify the place in the process where the effect of the rooot cause could have been detected and contained.
#D6- Choose and Verify a Permanent Corrective Action - D6 provides the opportunity to implement selected PCA. One of the most important things is that the supplier can validate this PCA with KFTP during Monthly Supplier Meeting.
#D7-Countermeasure confirmation - in accordance with KFTP requirements control effectivnes of permanent actions during 3 months.
#D8 - Follow up - D8 provides the opportunity to modify the necessary system including policies, practices and procedures to prevent recurrence, practices and procdures to prevent recurrence of the identified and similar problems. Also at D8, users make recommendation for systematic improvements, as necessary and document Lesson Learned.
2) Timing:
A. The response should be sent by the Due Dates indicated by KFTP, whether or not the permanent corrective actions have been determined.
B. Containment plan response must be received no later than 24 houres after being notified of the problem.
C. Completed corrective action response must be received no later than 7 days after being notified of the problem. (after approval KFTP time can be longer)
3) Follow-up: KFTP reserves the right to follow-up and verify corrective actions which may include an on-site visit.
4) Monthly Quality Supplier Meeting
A. Meeting Frequency one time per a month
B. Attendence (supplier) - supplier's Quality Manager have to present the 8D report
C. Attendence (KFTP) - Supplier Managment Team
D. Samples - each supplier should bring and display NG part and OK. part
E. Main content of the meeting:
a) detail analysis of the root cause - analysis data, pictures, analysis techniques (5 Why, Ishikawa, …) attached
b) to check the effectiveness of permanent C/M data needed (quantity of produced parts, quantity of defects)
c) preventive actions of supplier (lesson learned)
d) documentation update (Control plan, FMEA, Work instructions, ..)

5. Process Flowchart



Click Here to Move Back to Table of Contents

1.Prupose	2. Application scope
To explain the method for reviewing and authorizing the use, by concession or repair, of purchased material identified by the supplier as not conforming to current specifications.	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP

3.Explanation:

The KFTP SDR form is to be used to request KFTP approval for parts or materials that do not meet drawing or specification requirements. The Supplier is responsible for submitting a KFTP SDR with the First Article Inspection report or anytime after start of production if a deviation is required.

4. Supplier Responsibilities:

1. The following steps must be followed when submitting a KFTP SDR form:

A. Timing:

a. First Article Inspection - Submit with FAI if measured dimensions do not meet KFTP's drawings / specifications

b. After start of production - Submit as soon as a non-conformance is found

B. Samples: KFTP may request samples of the parts or materials requesting deviation at the same time the SDR is submitted. Contact the responsible KFTP section for guidance on the quantity required.

C. Completing the SDR Form: The Supplier must fill out the form with detailed information

a.) Supplier: Company's name

b.) Supplier Location: Supplier location requesting SDR

c.) Type of Deviation: Indicate either Part or Material deviation

d.) Part Name:KFTP's part name (per drawing)

e.) Part Number:KFTP's part number

g.) SDR Quantity: the total quantity/weight affected (if deviation is granted for a certain quantity or weight, a new deviation would have to be submitted and approved to send any amount above that which is stated on the original KFTP SDR form request.

h.) Delivery Date: The date the first delivery would be required based on Supplier inventory and KFTP's delivery requirements.

i.) Ending Date: Put the date the last shipment would be made (If Supplier later wishes to extend the ending date from that which was approved, a new KFTP SDR form would have to be submitted and approved to cover that additional time period. For a die deviation specify if for life of the tool.)

j.) Drawing Rev #: Current drawing revision number which the SDR applies

k.) Description of Deviation: Root-cause(s) of the non-conformance(s)

l.) Corrective Action Description: actions taken to prevent recurrence of the non-conformances

m.) Supplier Representative: Person at Supplier responsible for sign-off

n.)KFTP Approver and Date: IR Contact's name and date of approval of the SDR.

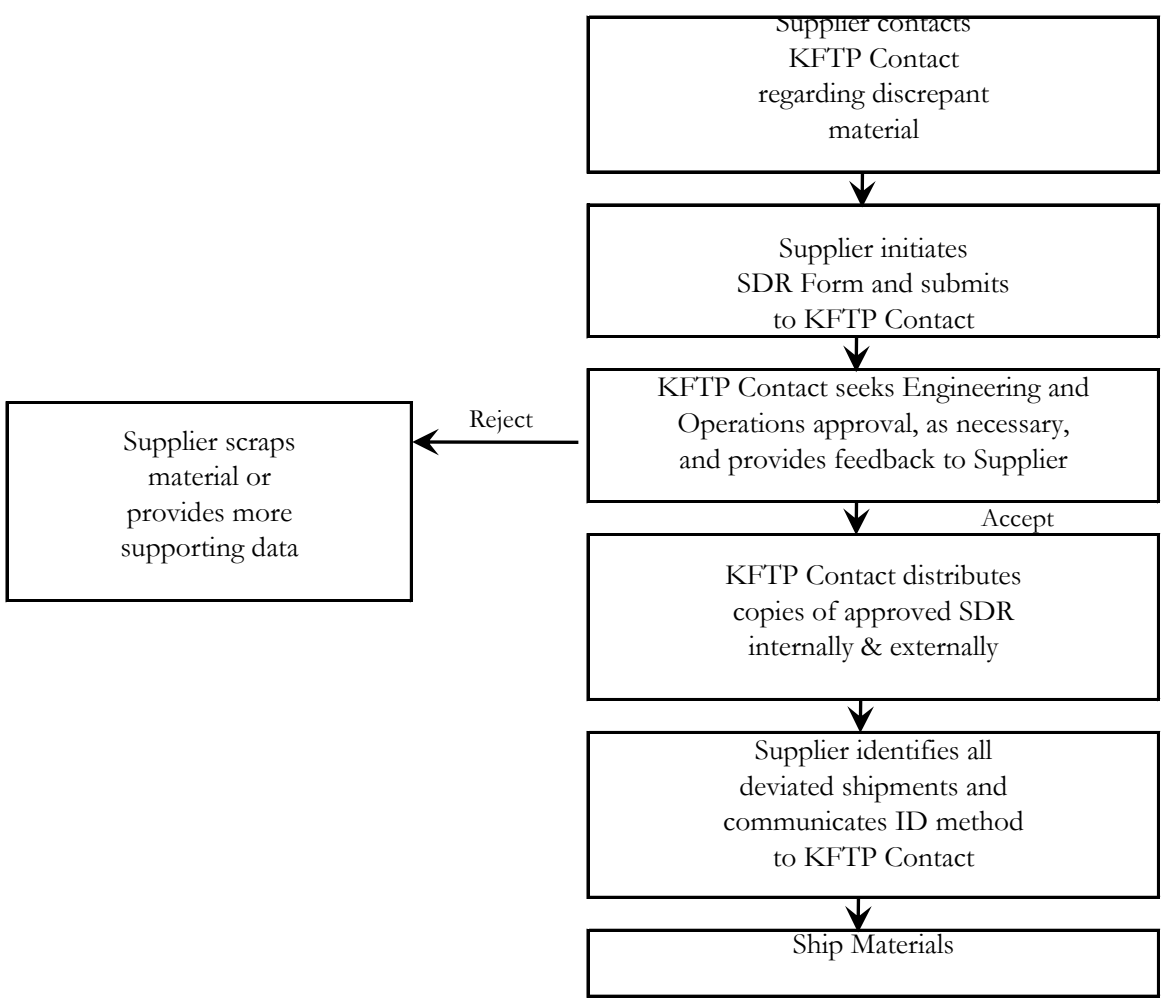
Note: Failure to complete all areas of the SDR form properly may result in a rejection of the request.

D. The Supplier must include any additional supporting documentation (as necessary) that will assist KFTP in evaluating the deviation request.

2.KFTP will evaluate the SDR and inform Supplier of the decision. If approved, the Supplier must uniquely identify all shipments of deviated parts/materials.

3. If the use of deviated parts/materials cannot be avoided and KFTP must modify it's process,KFTP's Supply Chain Representative will be involved to address costs incurred by modifying KFTP systems as a result of the deviation

5. Process Flowchart



1.Prupose	**2. Application scope**
To explain the Performance Monitoring expectations for KFTP Suppliers	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP

3.Explanation:

This is a process to develop relationships through a supplier evaluation process that promotes communication and continuous improvement throughout the entire product cycle. Involvement, commitment, trust, cooperation, and teamwork are the underlying principles that will guide our quest for achieving customer satisfaction. Routine reviews of the Supplier's Scorecard is a tool used by suppliers and KFTP to aid in the communication process.

4. Supplier Evaluation:

	Evaluation criteria	Max. Points available	Possible Score	Subcomponents Suppliers VW group	Remarks
Quality	Audit result	100	0-100	0-100	
	Grading of the assessment	A,B,C+,C	0-100		
	Quality (PPM)	20	0	> 20	
			5	11-20	
			10	6-10	
			15	1-5	
			20	0	
	Claim procedure (answer for claim)	10	0	>answer 1 week	
			5	answer 1 week	
			10	answer 24h	
	Management System	5	0	no certificate	
			1	during implementation	
			2	ISO 9001	
			3	ISO 9001+ISO14001	
			4	ISOTS 16949	
			5	ISOTS 16949 /ISO14001:2004/ OHSAS	
Delivery	Delivery reliability - receive vs order	20	0	> 50%	
			5	50%-59%	
			10	60%-79%	
			15	80%-90%	
			20	<90%	
	Delivery reliability - on time	20	0	> 50%	
			5	50%-59%	
			10	60%-79%	
			15	80%-90%	
			20	<90%	
	Flexibility (acceptance changes plan)	10	0	accept less than	
			5	25%-70%	
			10	>70%	
	Panelty for major supply disruption		- 21		Special Penalty for supply discrutpion
Price	Payment terms	5	0	cash	
			2	14 days	
			5	30 days	
	Price level	10	0	>110% of price target	
			5	110%-100% of price target	
			10	100% of price target	
	Performance ratings:	A,B,C+,C			

Additional target for critical characteristic:

Capability study	**Capability**
Machine capability index, short -term study	Cmk>=1,67
Process capability index, long -term study, stable process	Cpk>=1,33
	Ppk>=1,33

Process audit assessment ratings:

Overall fulfillment level as a percentage	Assessment of the processes	Grading of the assessment in accordance with VDA standard	Grading of the supplier in accordance with KFTP standard
90 to 100	Qualitycapable	A	A–unrestricted approval for a specific range of parts , requirements fully fulfilled
80 to under 90	Conditionally qualitycapable	B	B–limited approval for a specific range of parts , requirements mostly fulfilled
75 to under 80	Not yet quality-capable	C+	C+–with conditions (independent implementation of an improvement program)with the opportunity of requalification by KFTP, requirements partially not fulfilled
under 75	Not qualitycapable	C	C–supplier not approved, requirements not fulfilled, process ended

Performance supplier ratings:

Overall fulfillment level as a points	Grading of the assessment	
90 - 100	A	Excellent
80 - 89	B	Good
50 - 79	C+	Average
0 - 49	C	Poor

Supplier Assessmnet Matrix

Performance supplier rating	Process audit ratings: A	B	C+	C
A	**A**	**B**	**C+**	**C**
B	**B**	**B**	**C+**	**C**
C+	**B**	**C**	**C+**	**C**
C	**B**	**C**	**C**	**C**

5. Specification of quality requirements

General requirements

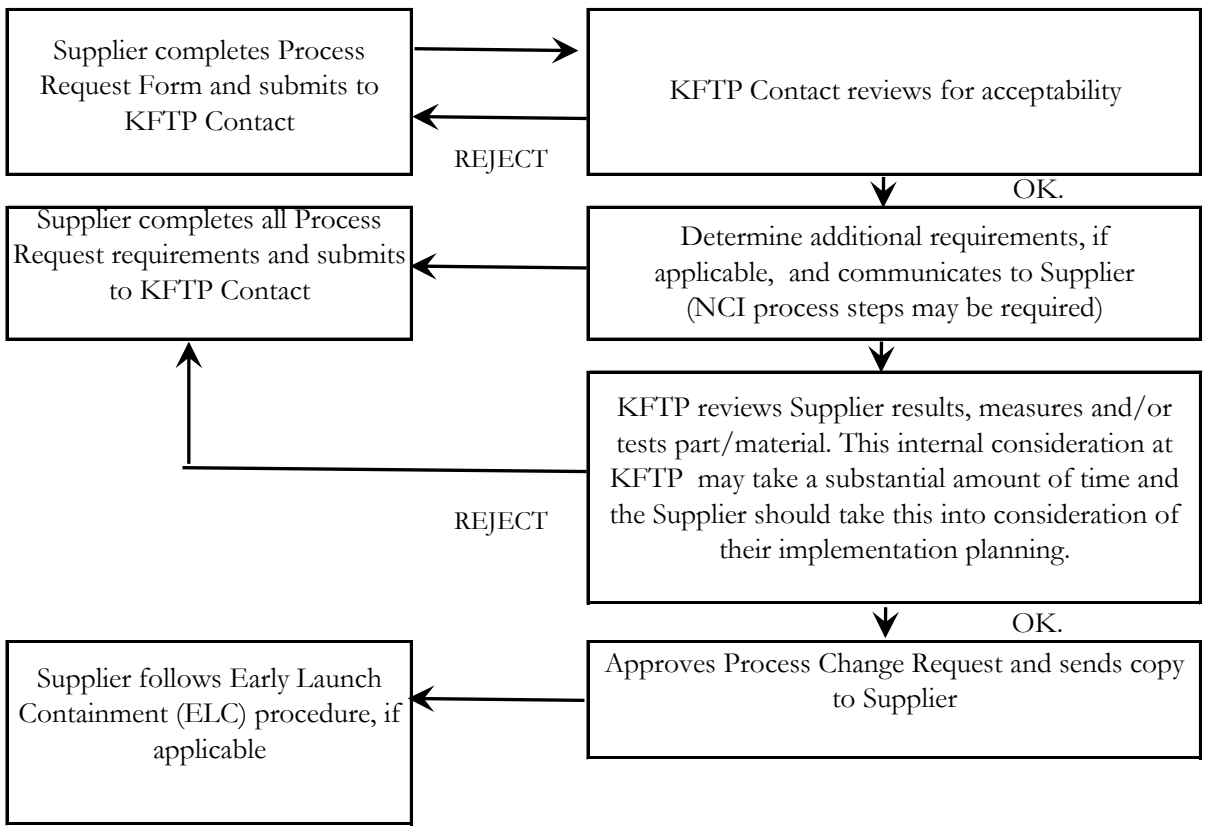
Specified parameter	**Requirement of KFTP**	**Method of recording**
QMS	ISO TS 16 949 till 14.09.2018 , after 14.09.2018 ISO 9001:2015 and IATF 16949:2016, VDA 6.1	Valid certificate
ppm6 (number of non-conform parts per 1 million delivered during last 6 months)	max. 10 (target to achieve A grade)	Evaluation of suppliers
Sampling	VDA 2 and	

1.Prupose	2. Application scope
For better control 4 M changes	Applies to all Suppliers of production parts, raw materials, service parts and sourced products to KFTP

3. Supplier Responsibilities:

	Design Change		Process Change		Supplier / Component Change	
Deliverable	Notification	Approval	Notification	Approval	Notification	Approval
Design Record	√	√	√	√	√	√
Engineering Change Documents		√				√
Drawing & Specifications		√				√
Design FMEA		√				√
Process Flow Diagrams						
Process FMEA		√		√		√
Control Plan		√		√		√
Measurement Systems Analysis		√		√		√
Dimensional Results (ISIR)		√		√		√
Material, Performance Test Results		√				
Initial Process Studies (Capability)		√		√		√
Appearance Approval Report		√		√		√
Sample Product		√		√		√
Master Sample		√		√		√
Records of Compliance with Customer Specific Requirements	√	√			√	√
PSW		√		√		√

5. Process Flowchart



1.Prupose	2. Application scope
This document defines the material delivery and logistics requirements, for conducting business with KFTP for a Supplier	Applies to all deliverd parts componenets, raw materials to KFTP

3.Explanation:

It is the responsibility of a Supplier to adhere to the requirements listed in this document and the KFTP Corporate Purchase Order Terms and Conditions. In the event that an inconsistency between this document and the Purchase Order Terms and Conditions exists, the Purchase Order Terms and Conditions shall supersede this document.

4. Supplier Responsibilities:

A. Electronic Data Exchange

KFTP corresponds with suppliers via E-mail . Although the frequency can vary, this communication typically takes place on a weekly basis or when customer requirements drive significant changes in KFTP's delivery schedule.

B. Customer and Production Schedules

The supplier must generate a production schedule that ensures all customer requirements are met. The supplier shall maintain documentation that shows the correlation between weekly customer requirements and the production schedule, or as specified by the Just-In-Time (J.I.T.) schedule.

C. Premium Freight

Premium freight is considered a non-conformance to shipping guidelines. The cost, whether on KFTP's or the supplier's side, adds to the cost of our products without increasing value. Based on this, it is the goal to eliminate unnecessary premium freight.

The supplier shall have a system to monitor all premium freight that shall include documentation describing the necessity and authorization for premium freight. The program shall also include a documented program for reduction/elimination of premium freight that includes corrective action and monthly reporting to the KFTP on the cause of the premium freight and corrective action taken. The supplier is responsible for all premium freight charges and subsequent charges associated with product that is delayed, due to supplier logistical, quality or scheduling problems.When Premium Freight is required, there must be a KFTP Premium Authorization Number issued from the KFTP purchasing department.

D. Physical Condition

All boxes and trolleys are expected to be clean and in good useable condition. Any boxes and trolleys damage shall be reported to the carrier prior to loading of product. Prior to unloading of the material any damage will be recorded and acknowledged by the vehicle driver.

E. Logistical Concerns

Logistic concerns will be reported on the CA&PA report or other appropriate forms and will be assessed against the supplier. Logistical concerns will be assessed against the supplier on the Performance Monitoring Scorecard.

F. Non-Delivery, Delayed Deliveries or Short Shipments

If non-delivery, delayed deliveries or short shipments are anticipated, ALL suppliers shall immediately notify the KFTP Material Control Department of the receiving location. Delays, short shipments, or quality rejections may cause line or operation interruption at the customer, and in severe cases, may result in OEM assembly plant shutdown. In the event of concerns that interrupt production, the following shall occur:

— The customer shall immediately notify the Material Control Manager of the supplier.

— A CA&PA response report may be requested. The supplier must complete the CA&PA report response with permanent corrective action and send the original to the KFTP QC and a copy to the Material Control Department.

G.Performance Monitoring Scorecard

A supplier's delivery performance score is also available on the Performance Monitoring Scorecard. The supplier's delivery performance is based on timely delivery, delivery of correct quantities, payment terms, flexability, delivery by Premium Freight, penalty for major supply disruption.

These six measures are compared to the total of the supplier's deliveries to determine the score. The delivery precision indicator is automatically calculated on the scorecard. Questions related to delivery performance should be addressed to the supplier's contact in the KFTP purchasing dept.

5. Process Flowchart