

Kilian Precision Machined Bearings

Supplier Manual

1QA002 Revision 9/29/2022



 **Kilian**[®]
Altra Industrial Motion

Table of Contents

1. Purpose & Scope
2. Quality Policy
3. General Requirements
4. Commercial
5. New Product Introduction
6. Change Management
7. Process Capability and Monitoring
8. Non-conforming Product or Service
9. Packaging & Labeling
10. Traceability
11. Quality Records
12. Supplier Performance
13. New Suppliers
14. Revision Log
15. Appendix

1. Purpose & Scope

The purpose of this manual is to promote a clear understanding of Kilian's expectations and requirements for Suppliers. This manual establishes minimum requirements, is supplemental to, and does not replace or alter any purchase agreement. This Supplier Manual applies to all production material and process Suppliers.

2. Kilian Quality Policy

“We do whatever it takes to satisfy our customers!”

Principles & Objectives

Our quality assurance system is built upon the following principles:

- We are the market leader;
- We listen to our customers and are committed to complying with requirements;
- We continually improve the effectiveness of the quality management system;
- We respect people and expect them to take individual responsibility for quality; and
- We provide high quality products that we deliver on time.

The entire Kilian Team will adhere to the spirit and intent of this policy, as well as the directives of this quality assurance manual and its supporting quality system documentation.

Kilian's customers hold Kilian responsible for the quality of all purchased products or services provided through Kilian, regardless of point of manufacture. Kilian shares this perspective and expects suppliers to uphold and embrace these quality objectives as their own. Our policy includes

striving to exceed customer requirements with the standard of measurement being zero defects. Kilian is committed to this approach and we expect the same commitment from our suppliers and willingness to work toward the common goals outlined in this manual.

Acceptance of any and all purchase orders constitutes acceptance and commitment on behalf of the recipient to comply with this manual's content.

Restricted Materials

All lubricants, rust preventatives or additives must not contain solvents, as Kilian is a solvent free facility.

3. General Requirements

- The Supplier's entire facility shall be registered to ISO 9001:2015, IATF 16949, AS9100 or included on a Kilian customer approved supplier list by demonstrating compliance to one of the aforementioned standards.
- Kilian expects suppliers to perform contract review for all purchase orders including P/O requirements, Terms and Conditions, engineering specifications and quality requirements.
- Suppliers shall agree to be 2nd party audited as determined by Kilian's Quality Department.
- Suppliers shall grant Kilian or its customers right of access to the applicable areas of all facilities, at any level of the supply chain, involved in the order and to all applicable records.
- Suppliers shall maintain compliance with the requirements included in this manual.
- Suppliers shall have a fully trained backup to our primary customer service contact. This person must have a thorough understanding of all Kilian requirements.
- Suppliers shall ensure control over outsourced processing. Outsourcing processes does not absolve the supplier of the responsibility of conformity to all Kilian requirements.
- Supplier shall flow-down to sub-contractors applicable requirements, including key characteristics as defined in Section 7.
- When designated by Kilian, suppliers shall use customer-approved special process sources.
- Suppliers shall notify Kilian of any planned or unplanned interruptions in production which may impact the continuity of product supply. Holiday and predicted closures must be communicated to Kilian a minimum of 12 weeks ahead of time.
- Suppliers shall notify Kilian in advance of any changes in plant operations, capabilities, or process changes.

- Suppliers are responsible for taking the necessary precautions to maintain Kilian property in their possession. In the event Kilian property is deemed unusable as-received, the Supplier shall notify Kilian upon receipt and Kilian will provide disposition, such as use as-is, request additional processing to correct or return or scrap. Pictures should be provided to aid Kilian in disposition of suspect material.
- Suppliers may be accountable for material which Kilian has provided for further processing when the Supplier experiences excessive losses due to process related issues or other events which are deemed under the control of the Supplier.

4. Commercial Requirements

Terms and Conditions

Normal Payment Terms are net 60. All Kilian Orders, including outside services are subject to our terms and conditions as listed on our purchase orders. Invoices should be sent as instructed on the applicable Purchase Order.

Ethics

We request your cooperation and support in helping Kilian maintain a fair, ethical, and effective procurement system for all products, supplies, and services. Our corporate policy requires us to conduct business according to the highest ethical standards; we seek to avoid even the perception of a conflict of interest or other impropriety in order to maintain the integrity of our procurement system. Please refer to the “Code of Business Conduct and Ethics” document under the Corporate Governance tab on www.altramotion.com.

Acceptance of Gifts

We value sound relationships with our suppliers. These relationships are based on quality and service at a fair price. For this reason, the giving and/or receiving of gifts at Christmas or any other time of the year is not condoned and will not be practiced. Promotional items of minor value, which we define as having a value of \$10 or less, may be accepted, or given, as a gesture of goodwill.

Quotations

Quotations must list the required specification and revision level as listed on our request for quotation. Deviation to the required specification and revision level is not allowed without Kilian’s approval. Deviation, when granted, must be clearly stated on the quotation. Quotation provided

without the required information or received beyond our required date will be deemed invalid and may not be considered.

Lead Time

Kilian and the supplier will agree to the assigned lead-time for the purchased product or service before or during the ordering process. Transit time is to be considered in the development of lead-time. Changes or anticipated changes in lead-time must be communicated to the Kilian Purchasing Department.

Delivery

100% On-time Delivery performance is required. The delivery date is defined as the date the complete order is delivered to Kilian. On-time delivery is defined as Five (d) days early to Zero (0) days late. Deliveries more than Five (5) days early may be returned to the supplier and sent freight collect.

Materials, Components, Tools, Supplies – Delivery is measured against our Purchase Order required date. The required date is not the supplier's ship date; it is the date that Kilian requires the product delivered to our facility.

Outside Processing – such as plating, heat treat, cleaning and coating is measured against the lead-time for that process.

Kilian will react to our customer's requirements and at times may request a product or service to be delivered sooner than the agreed upon lead-time. Suppliers are expected to respond accordingly to assist Kilian in meeting those requirements. In the event that the supplier is not able to meet our requested date, it is the supplier's responsibility to advise Kilian of the best delivery date within the agreed, normal lead time. Delivery will then be measured against this promised delivery date.

Delivery for components, supplies, and tooling may be made from the purchase order issuance date to the required date. Any delivery of components, supplies, or tooling received after the required date will be considered late.

Delivery for outside processes may be made from the packing slip issuance date through the last day of the agreed lead-time. Any delivery of outside processing received beyond the agreed lead-time will be considered late.

All shipments must use a carrier approved by Kilian Manufacturing. If an unapproved carrier is used, the freight charge will be billed back to the supplier.

Shipment Quantities

Unless otherwise specified, Kilian's allowable shipping tolerance is +/-5%. Shipments received outside of this tolerance are subject to rejection unless authorized in advance by the Kilian Purchasing Department.

Kilian weigh-counts all outbound shipments and receipts of product for outside processes. It is the supplier's responsibility to verify our counts upon receipt and to determine shipping quantities before shipment back to Kilian or drop ship location. Discrepancies must be reported immediately to the Kilian purchasing department. Kilian will issue payment based on the quantity of product weigh counted upon receipt at Kilian. Partial shipments are not allowed unless authorized by Kilian.

Shipping Documents

All shipments must include the following:

- Advance Shipping Notification, indicating part number, purchase order, part quantity, and number of containers to be faxed or emailed to Kilian's receiving office. Fax number 315-432-1312
- Packing slip detailing the contents of the shipment. For materials, components, and supplies, the KMC part number and purchase order number must be printed on the packing slip. Reference the Appendix for an example of a packing slip.
- For outside services, the part number is required along with the shipment and Manufacturing Order number listed on the Kilian outside service packing slip.

- Documentation, such as MSDS sheets, to satisfy current governmental and safety constraints on restricted, toxic and hazardous materials must be provided. Unless otherwise specified all materials and coatings will be RoHS compliant.
- Certification, as defined on the purchase order, that clearly states compliance to the required specification and revision level as listed on the Kilian Purchase Order or Outside Service Packing slip.
 - Chemical analysis is required for metal purchases.
 - For special processing, Certification must list the Kilian part number, Purchase Order Number or Manufacturing Order Number, and the shipment number listed on the Kilian order.
 - Heat treat analysis is required for heat treat process.
 - Plating thickness analysis is required for plating.
- When a Kilian customer specification is included in the Engineering Specification, certify to both the Kilian specification and to the latest revision level of the Customer Specification. Special processing, e.g. heat treat and plating, certification requirements also apply to product purchased complete, i.e. sold to Kilian with heat treat and/or plating provided on the supplied part.
- Master pallet labels or tags listing the Kilian part number, number of containers, and net quantity per part number, for mixed pallets.
- Quality documents when requested.

Kilian Location, Phone Number, and Receiving Hours:

1728 Burnet Ave, Syracuse, NY 13206

315-432-0700

Receiving Hours: Monday through Friday, 7:00 AM -3:30 PM.

5. New Product Introduction

Kilian services many different markets with a variety of customer quality system requirements. Kilian's policy is to meet or exceed customer expectations in conjunction with the requirements of ISO 9001, as well as IATF 16949 and AS9100 requirements for applicable customer applications. As such, Kilian will tailor the quality requirements for specific products to achieve the desired customer expectations. This variety of customer requirements primarily impacts the expectations for qualifying new products. Kilian will endeavor to communicate specific product qualification requirements during the quoting process but recommends that the supplier requests the specific requirements as early as possible in the new product introduction process.

Advanced Product Quality Planning (APQP)

Kilian performs APQP on its products and requires that its suppliers participate with Kilian in this approach. The supplier and Kilian must understand and agree on all applicable quality standards and requirements. Agreement must be reached on all critical quality characteristics, control items, check fixtures, packaging requirements, and all other quality related matters.

Pre-production Samples

Pre-production samples will be coordinated through the Kilian Sample Coordinator. Number of samples, related markings, quality and packaging requirements will be provided by the Sample Coordinator. Typically documentation shall include a layout, material certifications, heat treat and plating certifications, as applicable and material traceability. Shipping labels shall include lot identification, e.g. sample manufacturing date.

APQP Tools

Unless a waiver is granted in writing, Kilian requires that the supplier use the advanced quality planning techniques (as they apply) described in the most current revision of the AIAG Advanced Product Quality Planning and Control Plan manual.

Sampling Plan

Suppliers shall use a formal sampling plan. A Zero Based Acceptance Plan, C=0, with an AQL of 1.0% is recommended. Reference the Appendix for an example of a C=0 sampling plan.

Packaging

Suppliers are asked to suggest packaging that will allow conformance to the deliverable product specifications. Suppliers are expected to promote packaging methods based on experience. Refer to the Commercial and Packaging sections of this manual for additional packaging requirements.

Production Part Approval Process (PPAP) / First Article Inspection (FAI)

Kilian suppliers may be responsible for creating Control Plans, Process Flow Charts, and Process Failure Mode Effects Analysis (PFMEA) in order to substantiate conformance to all applicable product requirements. When these requirements apply, Suppliers are not authorized to begin production or ship production intent product to Kilian prior to approval of these elements.

PPAP submissions shall comply with the AIAG Production Part Approval Process (PPAP) Manual 4th edition. FAI submissions shall comply with AS9102B.

Submission Level/Due Date

All submissions will be specified by Kilian at the commencement of the Kilian Advanced Quality Planning process. When submission is requested the default will always be a Level 3 PPAP.

All Submissions will be made to the Kilian Manufacturing drawing. Kilian Purchasing will establish the due date for requested documentation.

Unless otherwise specified or authorized by Kilian all features in a sample or PPAP/FAI submission affecting fit, form or function must show capability of 1.33 Cpk or better. Even if documentation is not required at PPAP, substantiation of conformance shall be available upon request.

6. Change Management

No parts may be shipped which were made with changes to process, design, or sub-suppliers, including any deviation from PPAP submitted PFDs or Control Plans, without Kilian approval. Parts which have undergone any level of PPAP must comply with the AIAG Production Part Approval Process (PPAP) Manual 4th edition regarding notification of changes. Parts that are shipped after an unapproved change will be considered nonconforming and returned to the supplier for a full credit.

Changes which require Kilian approval include:

- Use of non-approved construction or material
- New or modified tools, dies, molds, including additional or replacement tooling
- Upgrade or re-arrangement of tooling and equipment, including changes in the process flow or re-work
- Transfer of production or tooling
- Change in supply of materials, parts or services
- New release of inactive (out of production exceeding 12 consecutive months) tools
- New source of raw material
- Changes related to components from internal build or sub-suppliers affecting fit, form or function

It is each supplier's responsibility to control and monitor their sub-suppliers to ensure these requirements are being followed. If you or your sub-supplier would like to make a change, Kilian must be notified. Kilian will determine and communicate the necessary requirements for approval. Please provide as much advance notice as possible in order to allow enough time for any necessary approval. The change may require validation by Kilian or by Kilian's customer, which may take several weeks to arrange and complete. Authorization of change is required prior to shipment of all products affected

by the change. Notification of a change should be submitted using Kilian Supplier Change Request (SCR) or equivalent. Reference the Appendix for an example of the Supplier Change Request (SCR) form.

Request of a change or deviation requirement that prevents shipment of PPAP-approved product without sufficient time to validate the change before the shipment is due, resulting in a delayed shipment, may result in a Corrective Action Request (CAR).




7. Process Capability and Monitoring

Suppliers shall verify conformance to specifications annually (annual layout). Records of this verification shall be maintained and made available upon request. Verification applies to all related specifications. Production records can be used to support this requirement.

Certain characteristics can be deemed as functionally important, and will require increased monitoring to insure the quality of the part. Those characteristics may be classified as significant or important, and will be identified on the drawing, as noted in the table below, or in an engineering specification or through direct communication with Kilian.

Control of these special characteristics shall be maintained through 100% verification or statistical monitoring via process control charting or maintaining a minimum capability index.

Statistical Requirements Ppk, Cpk

Symbol	Requirement
	<p><u>SIGNIFICANT CHARACTERISTIC:</u> Variation must be controlled and minimized</p> <p>Drawing requirements associated with the symbol must have a Ppk ≥ 1.67 at PPAP and a Cpk ≥ 1.33 during production. On-going statistical process control is required with records traceable to the production lot.</p>
	<p><u>IMPORTANT CHARACTERISTIC:</u> Variation must be controlled and minimized</p> <p>Drawing requirements associated with the symbol must have a Ppk ≥ 1.33 at PPAP and a Cpk ≥ 1.33 during production. On-going statistical process control is required with records traceable to the production lot.</p>
	<p><u>SPECIAL CHARACTERISTIC:</u> Variation must be controlled and minimized</p> <p>Process control is application specific. Requirements for each S symbol will be determined by a cross functional team involving Engineering, Manufacturing, and Quality.</p>

NONE	<p><u>STANDARD CHARACTERISTIC:</u> All drawing dimensions without a corresponding statistical tolerance symbol shall be considered standard characteristics. No statistical process records are required.</p>

Suppliers shall retain records of statistical monitoring and provide the data upon request. For those characteristics controlled by statistical monitoring and not achieving minimum requirements, 100% verification is required until statistical control is demonstrated.

8. Non-conforming Product or Service

Notification, Containment and Certification

Kilian will notify the supplier when non-conforming material is found. Upon notification, usually in the form of a Defective Material Report (DMR), the supplier is responsible for *immediate containment of potential suspect product including notifying Kilian of prior shipments or in-transit material with a similar condition*. Samples of the defect will be provided at the supplier's expense. The supplier is required to acknowledge notification of a non-conformity within one working day of the notification. Reference the Appendix for an example of the Kilian DMR format.

Corrective Action Response

When a non-conformity is discovered Kilian will indicate whether a formal corrective action response (CAR) is required via the email notification or DMR. The CAR shall conform to the Kilian 8D content and timeline. Reference the Appendix for an example of the Kilian 8D format. The next three production orders are to be certified that the non-conformity has been contained or corrected. The individual shipping containers are to be marked/labeled identifying certified stock.

It is the supplier's responsibility to follow-up on corrective actions with verification of effectiveness. The CAR shall include completion dates and quantities verified for both containment activities and permanent corrective actions. Timely resolution and response is important in maintaining a defect-free process.

- Due in 48 hours from notification: Report on containment activities.
- Due in 7 days: Root cause determination.
- Due in 30 days: Evidence of corrective action implementation.
- Due in 60 days: Evidence of corrective action effectiveness.

Suppliers should use a formal approach for root cause evaluation. Kilian recommends using a 3-legged 5-why method because it addresses not only the cause of the non-conformity but also how the part(s) escaped to Kilian and whether there is an opportunity to strengthen the supplier quality system to prevent a recurrence. (Reference the appendix for an example of a related 5 why form.)

Charge Back Policy

Suppliers are obligated to provide parts and services which conform to specified requirements. Costs incurred by Kilian due to non-conforming products or services or late deliveries, deemed to be the supplier's responsibility, may be charged back to the supplier. A charge of \$500 USD will be charged for all Defective Material Reports (DMRs) deemed the supplier's responsibility. Further costs may include Kilian customer imposed charges.

When product sorting is required, Kilian may elect to sort the product in house due to the urgency of need or at a local third-party sorter, and may charge the supplier for this sorting service. Kilian will provide the option for the supplier to replace rejected material. Kilian will coordinate with the supplier to determine the best solution available for Kilian to meet its customer obligations. The acceptance of product when received does not preclude rejection at a later date, if a non-conformity is discovered.

9. Packaging / Labeling

Packaging for all materials, components, supplies, parts returned from outside operations and tools must be sufficient to provide suitable protection against nonconforming conditions. All containers are required to be labeled with bar code labels which state Kilian part number, box quantity, purchase order number, and lot number or lot date in the format as described in the Appendix.

Unless otherwise specified, parts returned from outside operations must be delivered back to Kilian in their original container and the quantity per each container should approximate the original container quantity. Suppliers shall not mix manufacturing lots.

When liners/plastic bags are used for finished parts returned from outside services, they must be closed to prevent contamination.

Stacking of skids is not acceptable.

10. Traceability

Lot identify must be maintained at all times. The supplier's quality system shall ensure that all products are traceable to raw/start materials or to process settings used in the manufacture/service of a particular production lot, including manufacturing date, raw material batch identification, specification revision levels, and quality records. Lot identification shall be included on shipping containers. Refer to the Labeling section for further explanation of label requirements.

Due to the risk associated with mixing of processed and unprocessed product, all products that have undergone processing must be clearly identified, in a manner that is approved by Kilian, as processed product with the proper lot identification. This is to be in the form of a bright, preferably red, sticker or label attached to each individual box or pan.

11. Quality Records

Suppliers shall maintain a record of conformance to specifications. Quality records must be maintained for 10 years. A quality record is a document, written or electronic, which provides evidence of conformance to the procedures or work instructions or that required results have been achieved.

12. Supplier Performance

Kilian rates Suppliers based on Quality and Delivery performance. This rating is used to determine which, if any, Supplier warrants attention for improvement, and will influence continuance of current business, as well as eligibility for award of future business. Reference Appendix for Vendor Scoring Metric.

13. New Suppliers

All suppliers must be added to the Approved Supplier List. All new suppliers must be qualified prior to the awarding of new business. Successful completion of the Kilian Supplier Survey and evaluation by Kilian Purchasing, Quality and Engineering are required for inclusion on the Approved Supplier List.

14. Revision Log

Section	Change	Revision Date
All	Initial Release	August 28, 2013
	Changed TS 16949 to IATF 16949	5/12/2018
	Changed Small Supplier value	6/13/2018
	Changed On-Time Delivery-“Five Days Early to Zero Days Late	6/13/2018
	Added Engineering Requirement for new supplier add	6/13/2018
	Added Vendor Score Metrics	6/13/2018
7	Modified Statistical Requirement symbols	5/01/2019
Vendor Metrics	Added customer disruption and premium freight to vendor rating metrics	12/13/2019
Multiple	Clarified the requirement to use the AIAG PPAP manual and the requirement to notify Kilian prior to changes (Section 5 and 6) Updated the Corrective Action timeline (Section 8) Added baseline chargeback for all DMRs (Section 8) Numerous minor wording and formatting changes throughout	9/29/2022

Appendix

C=0 Sampling Plan

ZERO-BASED ACCEPTANCE SAMPLING PLAN
 "A Indicates that the Entire Lot Must be Inspected"

Acceptable Quality Level (AQL)

LOT SIZE	.010%	.015%	.025%	.040%	.065%	.10%	.15%	.25%	.40%	.65%	1.0%	1.5%	2.5%	4.0%	6.5%	10.0%
1-8	A	A	A	A	A	A	A	A	A	A	A	A	5	3	2	2
9-15	A	A	A	A	A	A	A	A	A	A	13	8	5	3	2	2
16-25	A	A	A	A	A	A	A	A	A	20	13	8	5	3	3	2
26-50	A	A	A	A	A	A	A	A	32	20	13	8	5	5	5	2
51-90	A	A	A	A	A	A	80	50	32	20	13	8	7	6	5	4
91-150	A	A	A	A	A	125	80	50	32	20	13	12	11	7	6	5
151-280	A	A	A	A	200	125	80	50	32	20	20	19	13	10	7	6
281-500	A	A	A	315	200	125	80	50	48	47	29	21	16	11	9	7
501-1200	A	800	500	315	200	125	80	75	73	47	34	27	19	15	11	8
1201-3200	1250	800	500	315	200	125	120	116	73	53	42	35	23	18	13	9
3201-10,000	1250	800	500	315	200	192	189	116	86	68	50	38	29	22	15	9
10,001-35,000	1250	800	500	315	300	294	189	135	108	77	60	46	35	29	15	9
35,001-150,000	1250	800	500	490	476	294	218	170	123	96	74	56	40	29	15	9
150,001-500,000	1250	800	750	715	476	345	270	200	156	119	90	64	40	29	15	9
500,001 & Over	1250	1200	1112	715	556	435	303	244	189	143	102	64	40	29	15	9

Kilian Supplier Change Request Content



KILIAN SUPPLIER CHANGE REQUEST

SCR #	Issue Date	Part Number	Supplier Name
DESCRIPTION OF REQUESTED CHANGE (from : to) (supplier to complete):			
TYPE OF CHANGE			
Material / Process <input type="checkbox"/>	Dimensional <input type="checkbox"/>	New /Additional Tooling <input type="checkbox"/>	New / Additional Supplier <input type="checkbox"/>
CLASSIFICATION Permanent <input type="checkbox"/>		Temporary <input type="checkbox"/>	
SUPPLIER MANAGEMENT CONCURRENCE (supplier to complete)			
Name	Title	Date	
KILIAN AUTHORIZATION (Kilian to complete)			
Name	Title	Date	
	Engineering:		
	Quality:		
	Production:		
Conditions for approval from Kilian (Kilian to complete as necessary):			
KILIAN ECN Required? YES <input type="checkbox"/> NO <input type="checkbox"/>			
PART(S) AFFECTED BY THE DEVIATION REQUEST			
Kilian Part Number	Drawing Rev. Level	Part Name/Description	
TOTAL QUANTITY OR TIME PERIOD AFFECTED BY THIS CHANGE REQUEST: all production			
REQUESTED TIMING OF CHANGE REQUEST APPROVAL (supplier to complete):			
Action required by supplier to eliminate deviation (supplier to complete):			
Kilian Closure			
Closed By	Date	Signature	Evidence Attached (PPAP, ISR, test report)

J:\KMC\PUBLIC\QUALITY\YTS16949\FORMS\FM0830 Kilian Supplier Change Request.doc
Revision: July 22, 2013

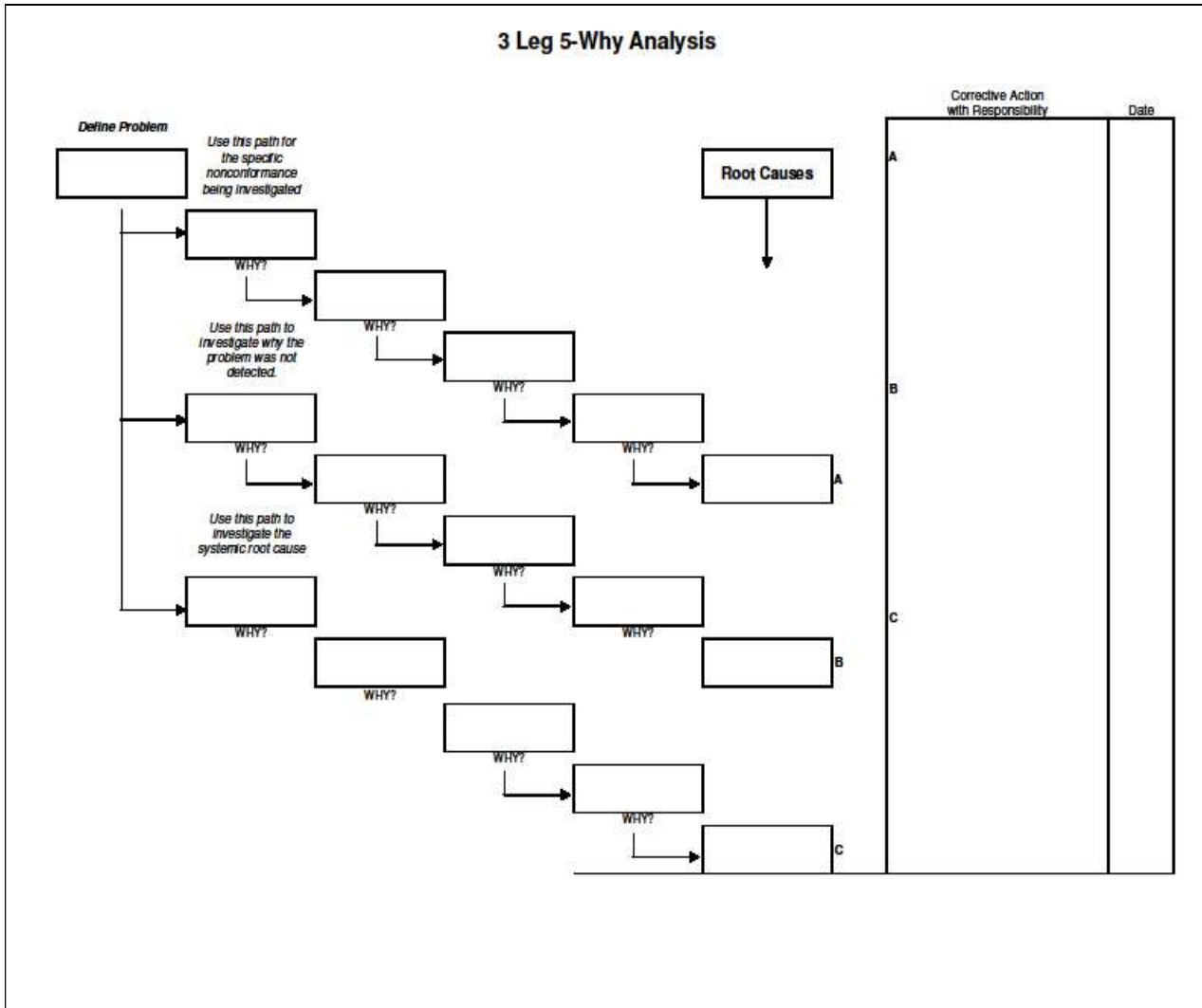
Kilian Corrective Action 8D Content

Kilian Manufacturing Corp. 8D "Root Cause" Problem Solving Report			
Kilian Tracking Number (CCR #):		Open Date	Revision Date
			Close Date
Supplier:		Customer:	
Part #:		Customer PIN:	
Part Name:			
Drawing # & Revision Level:			
1a. Name, Function and Contact Number for 8D Participants:		2. Problem Definition:	
		Digital Pictures (s), with arrows that point to specific defects	
		What:	
		When:	
		Where:	
		How Many: ?	
3. Containment Action(s) : Including Results of Sorting & Dock Audit Action Plans, until 8D is Completed.		Date:	Results:
4. Root Cause Analysis, using "Five Why" Analysis, or similar Analysis Methods:			
Description of Process Root Cause (Summary of fishbone & 5W analysis)		Date ID'ed:	Verification of Root Cause:
5. Corrective Action(s): Including Definition of Actions to Change / Improve Process and Verification Results.			
Action	Responsible:	Target Date:	Complete Date:
6.a. Implementation Plan for Permanent Corrective Actions:		Responsible:	Date:
6b. Is SCR Required? Yes ___ No ___		Date SCR Submitted:	Date SCR Approved:
7 a. System Modifications required to Prevent Recurrence.			
PFMEA Update Required?	Yes / No	Responsible:	Date:
Control Plan Update Required?	Yes / No		
Operator Instruction Updates Required? (Gage Instructions)	Yes / No		
Process Print Updates Required?	Yes / No		
PM Schedule Updates Required?	Yes / No		
Tooling Change Frequency Update Required?	Yes / No		
Mistake Proofing To Be Incorporated? (See actions listed above.)	Yes / No		
Other (Describe):	Yes / No		
7.b. Can / were specified changes applied to addition / similar part #'s, or Procedures?			
8. Close 8D and Congratulate the Team			
Final Approval of 8D:	Supplier 8D Champion	Kilian 8D Champion	Close Date:


8D, SCR, and PPAP Action Plans shall be completed in accordance with instructions included in Kilian Supplier Quality Manual.

5 Why Approach

Kilian recommends the use of a 3-legged 5-why approach to root cause analysis. If not familiar with this approach a diagram is included below and information is available on the internet.



Defective Material Report format (DMR)

		KILIAN DEFECTIVE MATERIAL REPORT Jul 26, 2013	
DMR#	<input type="text" value="11002"/>	Authorized By:	<input type="text" value="Joe Green"/>
		Date Issued:	<input type="text" value="7/10/2013"/>
Part #:	<input type="text" value="86557-90 (30043995)"/>		
Where Discovered <input type="checkbox"/> Customer <input checked="" type="checkbox"/> Rec. Inspection <input type="checkbox"/> Assy Inspection <input type="checkbox"/> Injered Audit <input type="checkbox"/> Other			
Problem:	<input type="text" value="EXCESSIVE FLASH ON ENDS OF ROLLERS"/>		
Initial Action <input checked="" type="checkbox"/> Parts on Hold <input checked="" type="checkbox"/> Quarantine <input checked="" type="checkbox"/> Supplier Notified <input checked="" type="checkbox"/> Production Area Notified			
Mfg/Purchased:	<input type="text" value="Purchased"/>	Supplier:	<input type="text" value="Kilian Canada"/> JAMES CAMPBELL
MO/PO Number:	<input type="text" value="4500072554"/>	LOT#:	<input type="text" value="JULY 2, 2013"/>
		Date Rec'd:	<input type="text" value="7/8/2013"/>
Qty Rec'd:	<input type="text" value="4,222"/>	Qty Rejected:	<input type="text" value="4,222"/>
		Sample Size:	<input type="text" value="50"/>
		Qty Ref'd Sample	<input type="text" value="24"/>
CAR Issued to Supplier	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	CAR Issue Date:	<input type="text"/>
		Use Customer Form	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Number of Boxes/Pars:	<input type="text" value="1"/>	Location:	<input type="text" value="QUALITY"/>
		Defect Code:	<input type="text" value="Component Defects"/>
Disposition:	<input type="checkbox"/> Sort <input type="checkbox"/> Rework <input type="checkbox"/> Use As Is <input type="checkbox"/> Return to Supplier <input type="checkbox"/> Scrap	Quantity:	<input type="text"/>
	See Instructions Below	Auth. By:	<input type="text"/>
Sort/Rework Instructions	MR #: <input type="text"/>		
Instructions:	<input type="text" value="VENDOR NOTIFIED. DISPOSITION: PENDING"/>		
Work Center	<input type="text"/>	Date:	<input type="text"/>
		Hrs:	<input type="text"/>
		Defects:	<input type="text"/>
Sort/Rework Approved By:	<input type="text"/>	Date Work Approved:	<input type="text"/>
LINK-NO:	<input type="text"/>	<input type="checkbox"/> DMR Closed	DMR Closed By: <input type="text"/>

Packing Slip Example

Tel:

Packing Slip

Date	Invoice #
4/23/2013	21349

Ship to
KILIAN MANUFACTURING CORP. 1728 BURNET AVENUE SYRACUSE, NY 13206

P.O. No.	Terms	Ship Date	Ship Via	FOB
4500	NET 30 DAYS	4/23/2013	FEDEX®Collect	CT Warehouse
Qty	P/N	Description		
2,010,000	3004	114 boxes @ 15,000 each Certifications enclosed with goods Packed By: TS Checked By: JW Tracking:		

Products supplied conform to all AFBMA, ISO, and/or customer specifications as shown above.

Shipping Label Example

PART NO. (P)	30045683		
			
QUANTITY (Q)	2000	PART DESCRIPTION	
		RIVET	
P/N	4500025083	TR ITEM	100-6155
		GROSS WT (LBS)	32
SERIAL (SR)	451512	LOT NO.	72008
		HARDNESS NO.	
		PLATING NO.	76050
		DATE OF MANUFACTURE	01/29/13
		ENG. DRWG.	N/A

Thompson Fasteners 200 Fourth St. Gananoque, ON K7G 2W9

Vendor Rating Metrics

Component Vendor Score

Determine ON TIME Delivery value from actual number in ERP database. Instances of premium freight may effect this value.

Determine QUALITY score by number of DMR's issued. (including customer disruptions)

Zero Quality Issues	100
1 - 2 Issues	75
3 - 5 Issues	50
5 & Up Issues	25

Evaluate Risk - Determine Rating

Combined total of ON TIME & QUALITY:

200 - 175	A	low risk
174 - 150	B	
149 - 125	C	
124 - 0	D	high risk

Any score under 175 may result in further action to be taken with vendor as deemed necessary by Management

Any supplier with 5 & Up DMR issues will receive a warning letter

Outside Process Vendor

Determine Quality Score by number of DMR's issued:

Zero Quality Issues	200	A	low risk
1 - 2 Issues	150	B	
3 - 5 Issues	125	C	
5 & Up Issues	50	D	high risk

Any score under 200 may result in further action to be taken with vendor as deemed necessary by Management

Any supplier with 5 & Up DMR issues will receive a warning letter.

