



ALEX PRODUCTS, INC.

**SUPPLIER
QUALITY
MANUAL**

Revision I 09/22/2015

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Supplier Quality Manual Revision Log

Date Revised	Version	Section	Section Description	Description of Revision
10/24/2007	E	NA	NA	NA
11/19/2010	F	1,3, 5, 6, 12, 13, 15, 16, 17, C	API Overview Quality Expectations, Request For Quote, Purchases, SRR, Performance, Packaging & Delivery, Labeling, Charges, Appendix C	1) Reduced PPM (<20), added ISO14001 3) added Customer Specific Requirements 5) 5 yr Service parts pricing 6) added FIFO, \$250 Processing Cost 12) added DMR 13) Reduced PPM (<20), monthly reporting, Business prioritization, points revised, 15) BOL, driver detention, PO-release number, returnable containers 16) barcode part number & quantity on label, AIAG format, Defined label use, added DMR 17) updated charges to reflect actual costs of non-conformance C) added label samples
09/21/2011	G	13	Performance Monitoring	Defined PPM assignable events
06/26/2012	H	3	Quality Expectations	Defined third party registration
09/22/2015	I	20,21,22	Performance Monitoring	Change PPM events to include API testing, Change 8D % On-time to 8D qty. On-time.

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The purpose of the Supplier Quality Manual is as follows:

- Identify objectives and goals for API suppliers
- Proactively meet and exceed all API customer requirements

When used as intended, this manual will provide a roadmap through the quality requirements and procedures at each stage of product life. This manual starts each section with the “basics” and then offers relevant specifics for the topic.

An educated supply base can only improve our ability to work as a team to completely satisfy the needs of our customers. Together, through continuous improvement and a firm commitment to quality, we can meet our goals of being “the best of the best”.

Thorough understanding of all the information contained within this manual, in combination with the referenced TS-16949, ISO 9001/2000 & ISO 14001, will greatly improve your strength and focus as an Alex Products Inc. supplier.

All changes to this manual will be reviewed by the Supplier Quality Engineer and approved by Director of Quality, or designate.

A handwritten signature in black ink, appearing to read "Jerry Allgire", written over a horizontal blue line.

Jerry Allgire
Director of Materials & IS/IT

A handwritten signature in black ink, appearing to read "Larry Baldwin", written over a horizontal blue line.

Larry Baldwin
Corporate Quality Manager

SECTION 1 ALEX PRODUCTS OVERVIEW

Alex Products began as an aluminum vent supplier to the building industry in 1973. Formally located in **Alex**ander, North Carolina, former owner Dexter Benecke, named the company "Alex Products" after it's previous location. The name stuck and with a change in ownership in 1984, David Von Deylen became a partner with Dexter. Dave, with his strong engineering background, started a machine shop that soon grew a reputation for completing "problematic" and "special" jobs for it's customers with high quality and precision. The success of Alex Products, Inc. is directly related to the acceptance of these "jobs" and our formula for "building in quality".

The formula involves the machine builders and their direct relationship with the parts. Who better to keep "problematic" jobs running than the machine builders, capable of easily identifying and eliminating potential obstacles? Soon, these machine builders were "bending experts" with a niche for tackling customer nightmares.

Alex Products is now a fully automated manufacturer, which produces welded assemblies of formed wire, tube and stampings.

The present owner, David Von Deylen, has witnessed profound changes since 1984. Then, Alex Products was merely a 1000 square foot machine shop where a few men cranked out quality parts. Now, the company has expanded into three facilities, housing 650+ employees, operating three shifts, all within 350,000 square feet. Our business is still growing and we will focus on continued success in the present and the future.

Production capabilities include automated wire and tube forming, metal stamping, robotic wire welding, automated resistance welding, assembly and E-coating. The business base is 97% automotive, which in itself proves to be challenging. The constantly changing industry is highly competitive with increasing demands for quality and service, including: TS16949 certification, ISO 14001 certification, quality RPPM<20, and annual price reductions.

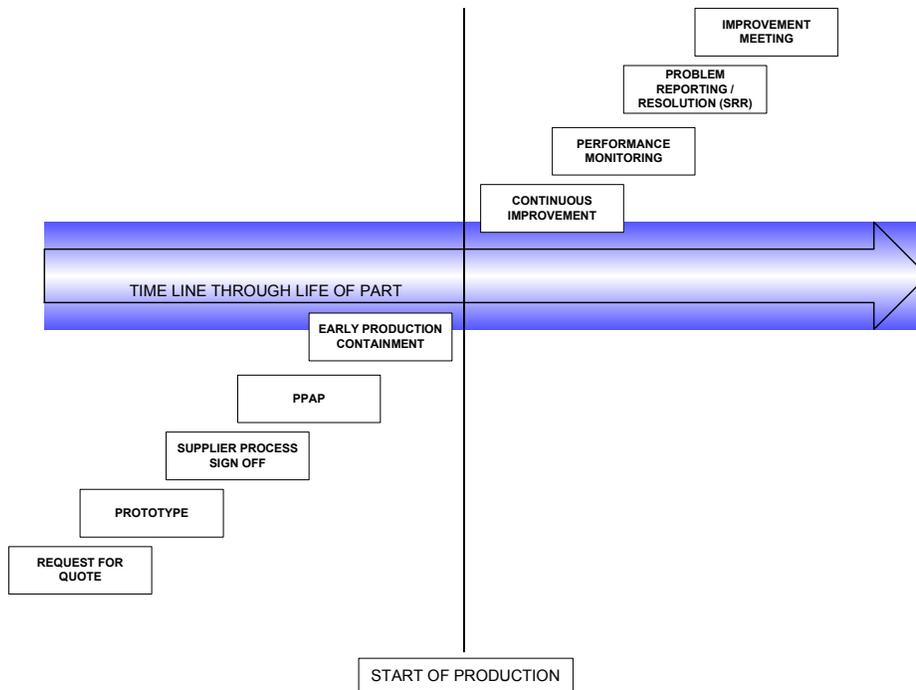
Meeting these demands is coupled with continued growth of the business. Our continued growth is necessary to fit the growing footprint of a Tier 2 supplier with supply base reduction.

SECTION 2 SUPPLIER PROCESS STAGES

Alex Products' focus on quality demands a more uniform application of supplier quality procedures. Therefore, referencing TS 16949, we follow the Supplier Stages Timeline shown below.

This timeline provides a method for controlling supplied products and services from quote through the life of the part. This manual reviews, in detail, each of the steps on the timeline.

Note that the horizontal axis represents time of the life of the part. The vertical axis represents the point in time relating to the official Start of Production. The steps are broken into two phases by the vertical axis. The first phase is referred to as proactive planning and the second phase is reactive.



The first steps are employed prior to the start of production to proactively work with the supplier, ensuring a quality product at the start of production. A Supplier Quality Engineer, or quality representative, will work with a supplier to facilitate or implement the Advanced Quality Planning Activities.

The last steps are used to monitor suppliers' performance and to contain non-conforming product. The SQE, or designate, will act as a facilitator for problem solving and to support continuous improvement.

SECTION 3 QUALITY EXPECTATIONS OVERVIEW

This document outlines the minimum quality expectations for supplying product to an API plant. The quality expectations cover requirements relating to the following:

1. Systems
2. Performance
3. Parts
4. Packaging and Labeling
5. Continuous Improvement
6. On site visits

SYSTEM REQUIREMENT

Suppliers are responsible for the development, documentation, implementation, maintenance and registration of a Quality system that complies with TS 16949:2002, or ISO 9001:2000 standards. Registration must be by an accredited third party certification body. *Suppliers are Encouraged to become certified to ISO-14001 Environmental standards.* Suppliers must at a minimum be compliant to all Local and Federal Environmental regulations, and are expected to follow social, environmental and economic practices that support sustainability. Suppliers are expected to comply with our ethics policy, and encouraged to have their own.

Notes:

- 1) TS 16949 registration does not exempt a supplier from a customer-conducted assessment, either business or quality related.

PERFORMANCE REQUIREMENTS

Our expectation is that the supplier Parts Per Million (PPM) will show continuous improvement with a goal of zero.

PARTS REQUIRMENTS

Our expectation is that all parts meet every blueprint specification.

PACKAGING, DELIVERY AND LABELING

All material must be properly identified with the appropriate label information. Bar code labeling is recommended.

For more information on packaging & delivery requirements see section 15.

For more information on labeling requirements see section 16.

CONTINUOUS IMPROVEMENT

Alex Products Inc. requires every supplier to actively participate in continuous improvement activities. It is intended to reduce process variation and improve the quality of the parts.

Alex Products Inc. encourages all suppliers to become environmentally friendly. Each supplier should identify all activities that have an adverse impact on humanity and environment and strive to reduce these activities using continuous improvement.

For more information on continuous improvement see section 11.

CUSTOMER SPECIFIC REQUIREMENTS

Alex Products Inc. requires every supplier to adhere to the general customer specific requirements outlined in the TS-16949 and ISO-9000/9001 standards.

These may be, but are not limited to:

- Implementation of a layered audit program
- Submission of various Continuous Quality Improvement standards such as:

CQI-9
CQI-11
CQI-12
CQI-15

- Dock audit programs
- Annual CMM layout certifications

ON SITE VISITS

Alex Products Inc. reserves the right to verify products at the supplier's location.

Also, all Alex Products Inc. customers have the right to verify product on the supplier's location when requested.

SECTION 4 SUPPLIER DEVELOPMENT

Alex Products is committed to aid subcontractors in the development of their Quality Systems the goal of which is to be compliant to TS 16949 or ISO 9001:2000

Alex Products Inc. will make available the quality manual, procedures and personnel to assist with the above.

Supplier audits may be performed at the supplier location to aid in this process.

SECTION 5 REQUEST FOR QUOTE PACKAGE

Alex Products Sales or Engineering or the Materials Manager will generate all requests for quote documents for new parts. Quote packages could contain information such as:

1. Design Records
2. Quality Expectations
3. Statement of Work
4. Feasibility Commitments
5. Engineering Notes
6. Buyer Notes
7. Type of Containers (i.e.: returnable vs. expendable)
8. Due Date for Request for Quote

RESPONDING TO A REQUEST FOR QUOTE

Please note that Alex Products Inc. may not honor late responses. The bidder should quote exactly what is specified, including all quality requirements, specifications, and/or print dimensions. Packaging is to be included in the piece price. Lead times shall be listed separately. All exceptions must be very clearly defined in writing and also verbally to the Buyer for review. The request for quote shall be returned, on time, to its' originator.

QUOTE RESPONSE REQUIREMENTS

Quote requirements center primarily on quality, service terms, pricing, and engineering compliance.

Quality Requirements:

- Compliance to all quality expectations

Service Requirements:

- Quote and meet production lead times

Pricing Requirements:

- No price increase throughout the parts life. (unless approved by Materials Manager)
- Lifetime, long-term contracts
- 5 years service parts at production prices (after production requirements stop)
- Parts during preproduction volumes purchased at production pricing
- Tool maintenance is included in the piece price.

Engineering Requirements:

- Do not start a tool without a tool purchase order; a part order is not a tool order.
- Tool payment is contingent upon PPAP approval

SECTION 6 PURCHASES

The materials manager will maintain an approved source list. Alex Products Inc. will purchase materials from vendors on this list. The materials manager may make additions to this list at his own discretion.

A blanket purchase order shall be issued to the supplier when a sourcing decision has been made. The blanket purchase order will contain the following information:

1. Alex Products part number
2. Print revision or specification
3. Payment terms
4. Piece price
5. Ship via Carrier
6. Material certifications are required as determined by API
7. PPAP when required
8. ASN 4 hours prior to shipment

Purchase orders may be canceled at any time due to unacceptable quality or delivery.

MATERIAL RELEASES

Supplier material releases are created as needed based on customer requirements. Releases will be faxed or emailed to the supplier. There will be two types of releases. One document is a weekly product release. This document will provide general information such as estimated annual volume, fabrication authorization, material authorization and estimated planning quantities. The second document is the shipping release, which authorizes shipment. The shipping release will be the only document to authorize shipment. Each release must be completed. 100% on time delivery is required. If a requirement cannot be met, the supplier is required to make every effort to notify the business unit administrator. Avoid shortages or overages when shipping. Over shipments are subject to be returned at the supplier's expense. A \$250.00 processing cost will be charged when over shipments are returned. Shipments shall follow first in first out (FIFO) stock rotation. Alex Products will monitor excess freight. Excess freight shall be debited back to the supplier provided Alex Products Inc. has met the supplier lead-time requirements.

OBSOLESCENCE

Alex Products Inc. will notify its' suppliers when material will build-out or become obsolete. Material releases must be followed closely upon obsolescence notifications. The last release will state that it is the final release. Over shipments will not be accepted.

Obsolete material claims must be submitted within 30 days of final release. All claims must be supported by a material release. **Any material purchased by the vendor beyond material release authorization will not be honored.**

SECTION 7 MATERIAL CERTIFICATION REQUIREMENTS, INCLUDING PROTOTYPE / PREPRODUCTION SAMPLES

MATERIAL CERTIFICATION REQUIREMENTS

All materials shall meet all blue print specifications and any additional requirements stated in the purchase order. Alex Products must approve any deviation to specifications. Any deviation not approved is subject to rejection.

Material certifications are required with each shipment to API for parts in pre-launch, and may be required for parts in full production. If an employee from API has to call for required material cert, the supplier may be subjected to a \$25.00 charge. The requirements for each supplier's shipment to Alex Products Inc. are defined on API's purchase orders and in this Supplier Quality Manual in section 6.

PROTOTYPE AND PREPRODUCTION REQUIREMENTS

Pre-production and Prototype parts are extremely important as they are our first opportunity to view the production intent process and product to ensure the voice of our customer is met. This opportunity also allows API engineers to evaluate the product and perform tests related to the part's assembly and operation. It allows API's program engineers to know the specific dimensional and inspection status of parts that are actually used for validation. As such, the supplier is expected to treat the Pre-production and prototype process and product as though they were production intent. The Pre-production and Prototype experience is the perfect time for the supplier to evaluate the robustness of the planned production process.

TOOLING

Customer owned tooling, in the possession of the supplier, remains the property of the customer. Alex Products reserves the right to remove customer owned tooling at any time.

It is the suppliers' responsibility to perform all normal tool maintenance during the life of the program.

Alex Products, through a purchase order, must approve changes to the tooling that require payment. Alex Products personnel may make tooling audits at the suppliers' facility.

The supplier shall not move any customer owned tooling to another site without written authorization by Alex Products.

SECTION 8

PROCESS SIGN OFF

SUPPLIER PSO

The purpose of the Supplier Process Sign Off (SPSO) is to ensure that a supplier's manufacturing process is capable of meeting the quoted tooling capacity, while satisfying all customer quality requirements. The Supplier Process Sign Off verifies that the actual manufacturing process conforms to the manufacturing process that will remain constant through start of production.

SPSO ELEMENTS AND REQUIREMENTS

Elements that shall be complete and in place at the time of SPSO include but are not limited to:

1. Plant layout
2. FMEA
3. Control Plan
4. Purchased components readiness
5. Product specifications/drawings/blueprints available
6. Tooling, equipment, and fixtures identified
7. Operator training
8. Operator Instructions
9. Parts handling plan available
10. Parts packaging/shipping specifications available
11. Containment plan available
12. Preventative maintenance plans established
13. Gage R&R studies completed
14. Product validation complete (as applies)
15. Line speed and capacity verified
16. Materials readiness verified

API will provide the supplier with the following:

1. Supplier Process Sign-Off Instructions
2. A blank copy of the SPSO form
3. Detailed questions
4. Supplier part plan
5. SPSO action item list

The API Program Manager, with input from the Advanced Quality Manager and Materials Manager, will identify which suppliers will require a Supplier Process Sign-Off. When chosen, a representative from the Alex Products organization will be at the supplier's manufacturing facility for the product run duration.

SECTION 9

PPAP

OVERVIEW

The intent of PPAP is to ensure that the supplier has the ability to manufacture product in the production environment meeting all requirements of the customer's design record and specifications. This process will also ensure that the supplier has a proper understanding of these requirements. Alex's goal for all suppliers is to obtain first time full approval of PPAP submission.

The AIAG Production Part Approval Process (PPAP) manual details:

1. When to submit
2. Levels of submission
3. Required run size
4. Capability requirements on SC/CC features
5. Submission requirements
6. Process requirements
7. Records and master sample requirements
8. Sample requirements

The manual also contains a detailed explanation on how to fill out the Warrant form, Appearance Approval Report, PPAP Dimensional Results form, PPAP Material Test Results form, and the PPAP Performance Test Results form.

API PPAP REQUIREMENTS

Suppliers must submit a Level 3 PPAP for initial product approval. This PPAP will need to be approved by Alex Products personnel before the supplied product can be used in production. Each PPAP shall be delivered by the due date agreed upon by Alex Products and the supplier. Any deviations to this due date shall be submitted by the supplier and approved by Alex Products Inc. Any late PPAP submission will show up on the supplier's scorecard. (see section 13)

REVALIDATION

Alex Products will also require annual revalidation submissions which, at a minimum, will include a six piece dimensional layout from a fully ballooned engineering drawing at the latest revision level, and current material certification. Deviations from these requirements must be granted in writing from the Alex Products Supplier Quality office.

PPAP RESUBMISSION

As stated in the AIAG Production Part Approval Process (PPAP) manual, some examples of PPAP resubmission are, but not limited to:

1. Engineering Changes to specifications or materials.
2. Production from new or modified tooling.
3. Production following refurbishment (non routine maintenance).
4. Rearrangement of existing tooling or equipment.
5. Production following any change in process or method of manufacture.
6. Production from tooling transferred to a different plant location.
7. Change of source for sub-tier suppliers.

Notes:

1. Familiarization with the detail contained in this section in no way dismisses the supplier from comprehending the detail within the AIAG PPAP manual.
2. Different submission levels do not change the supplier's responsibility of items that must be completed. It is the supplier's responsibility to complete all items that are required for part approval and maintain these items in their PPAP file.
3. It is the supplier's responsibility to submit corrective actions to an Interim PPAP approval prior to the Interim Approval expiration.
4. When a design record is modified, it is the suppliers responsibility to resubmit, at a minimum, a Warrant for each part number contained in the design record, even if a specific part number is not affected by the change. To effectively determine exact requirements for design modifications, contact an SQE or quality representative at Alex Products Inc.

SECTION 10

CONTAINMENT

OVERVIEW

Early Production (pre-launch) / Running Change Containment provides an added layer of protection between the supplier's production process and the customer at start-up and changeovers. This added protection should prevent nonconforming product or engineering changed (old revision level) product from ever reaching customers of Alex Products Inc.

API EXPECTATIONS

API and the Supplier should set an appropriate Early Production / *Running Change Containment duration*. Duration can be specified in terms of either time or number of parts.

Early Production Containment:

All containers of product shall be identified with "100% Inspected" labels as proof of Early Production (pre-launch) Containment.

The default duration is 1000 parts minimum.

Running Change Containment:

At minimum, the last shipment of old revision product must be labeled as "Old Style" product. The new revised product shall be labeled with "New Style" product. All "New Style" products shall follow Early Production Containment.

The default duration is 1000 parts minimum.

Controlled Shipping

Controlled Shipping Level-I (CS1) is typically implemented when 100% certifying of product is required based on risk that may be posed by a particular quality issue. A sample CS1 letter including exit criteria requirements is available in appendix A.

Controlled Shipping Level-II (CS2) is a result of failed CS1 and or chronic repeat issues that pose a risk to Alex Products or their customers. CS2 includes the supplier bearing the expense of a third party inspection company certifying product until exit criteria described in appendix B CS2 notification letter is achieved.

SECTION 11 CONTINUOUS IMPROVEMENT

OVERVIEW

All Suppliers are required to have an on-going process for continuous improvement. Continuous improvement is intended to reduce variation in the manufacturing processes and to improve the quality of the parts or materials produced as well as the service provided to API.

CONTINUOUS IMPROVEMENT ACTIVITIES

Continuous improvement activities can include, but are not limited to, the following:

1. Self assessment of quality system activities
2. Process control audits and capability study analysis reactions
3. Cost of quality improvements
4. Parts Per Million defective reductions
5. On-Time responses to both initial and final 8-D
6. Reduced RPN's or severity ratings on PFMEA's
7. Cost Improvements
8. Permanent corrective actions to resolve identified problems
9. On-Time delivery and customer communication improvements

SECTION 12 SUPPLIER REJECTION REPORT

ALEX PRODUCTS RECEIVING RESPONSIBILITIES

The receiving API plant is responsible for analyzing all supplied materials. Upon discovery of any nonconformance, the appropriate personnel will notify the supplier and a Supplier Material Rejection Report or Discrepant Material Report will be generated.

SUPPLIER RESPONSIBILITY

An 8-D specifying 100% containment must be submitted to Alex Products Inc. within 24 hours. The purpose of this initial response is to ensure no further nonconforming material will be shipped to API.

The supplier will need to provide a Return Material Authorization (RMA) number for disposition of the nonconforming material in question. If no response is given within five business days the supplier will be debited replacement costs.

In order for Alex Products Inc. to maintain delivery to our customer, the supplier may have three options in dealing with this non-conforming material. The first option is to send replacement material. The second option is for the supplier to sort material at API. The third option is for API to sort all nonconforming material. The supplier will be charged \$50.00 per hour.

The final corrective action identifying the root cause must be submitted within fifteen business days. Corrective actions should ensure irreversible corrective action has been implemented. Failure to contain and / or failure to define the Root Cause may result in the Supplier being placed on Level I / Level II containment. Documented changes to PFMEA's, Control Plans, and Operator Instructions should be included with the 8-D.

Suppliers must continue identifying products with 100% certified labels during investigation and should continue for three shipments after the final corrective action reports are submitted.

SECTION 13 PERFORMANCE MONITORING

Alex Products tracks the performance of all suppliers. It is the responsibility of the supplier to review their Supplier Performance Report that is published every month to www.alexproducts.cc. Then, this information will be averaged and sent to each supplier annually to provide benchmarks and goals. The report is a summary of supplier quality performance. The report is broken into sections.

These sections include:

1. Quality PPM
2. PPM Improvement
3. On-Time Delivery
4. On-Time 8-D
5. On-Time PPAP
6. Repeat Issues
7. Customer Issues

All ratings will begin anew each calendar year.

API EXPECTATIONS

Rejected Parts Per Million (PPM) is calculated by taking quantity rejected divided by quantity received and multiplying by 1,000,000. The goal for PPM is 0. The minimum acceptable PPM is less than 20. It is imperative for suppliers to continuously improve their quality PPM.

Product received into Alex Products facilities that does not conform to the drawing, specifications and/or agreed upon standards will be counted against a supplier's PPM record. Quantities will be reported in the units of measure in which they are purchased. This applies to production parts / saleable units.

The following are PPM assignable:

- Production Parts which do not meet drawing specifications or dimensional, functional, or appearance standards as called out in the specifications or from an agreed-upon boundary sample.
- Out-of-spec parts that require *rework/repair/testing* in order to be used.
- Production Parts damaged from inadequate packaging or transportation for which the supplier is responsible.
- In cases where the supplier may be shipping prior to PPAP with an approved customer deviation, any defects outside of the boundaries defined by the deviation.
- Out-of-spec parts shipped prior to PPAP approval without an approved customer deviation.
- Shipments that are received with mixed parts or parts that are the wrong revision level after the break point has been established. PPM is assigned for the quantity of incorrect parts only.

The following are NOT PPM assignable:

- Parts that meet all drawing specifications and/or boundary sample requirements, but are not useable.
- Parts that meet all specifications and/or standards but have been rejected by an API customer.
- Parts that have not been released and approved for production and/or have no released drawing (i.e. launch parts, sample/trial parts, DOE parts, pre-productions parts, etc.).
- Parts that are outside the production system will be addressed through prototype quality measures.
- Parts that have an approved deviation for an out-of-spec condition cannot be assigned PPM for rejects associated with the deviated characteristic, *unless further testing is required by API before use*.
- Parts that have been received with a delivery-related. Part information errors, delivery errors, and quantity errors should be rejected as a DMR rather than an SRR.
- In any of the above situations, it may be appropriate for an 8D to be requested, an MQR I or II to be scheduled, and/or Level I or II Containment to be initiated.

API will monitor on-time delivery. If a supplier fails to meet these requirements, they may be asked to submit an 8-D. Alex Products Inc. will monitor on time 8-D / corrective action. All PPAP submissions from suppliers must be submitted on time.

A score will be given to Alex Products Inc. suppliers based on the above measurables. When all these points are totaled, new business will be prioritized to those suppliers who are able to maintain a high level of points via the supplier rating system. We may also honor those suppliers who show the greatest level of improvements.

Bonus points will be available to those suppliers who improve their Quality PPM.

For a breakdown of the actual point rating system - see below.

SCORE CARD PERFORMANCE POINTS AVAILABLE

Parts Per Million	
PPM	Pts.
0-4	30
5-8	29
9-12	28
13-16	27
17-20	26
21-50	20
51-75	15
76-100	10
101-150	5
> 151	0

On time 8-D	
	Pts.
0 Late	15
1 Late	9
>= 2 Late	0

% On time PPAP	
	Pts.
100	5
95 to 99	4
90 to 94	3
85 to 89	2
80 to 84	1

Customer Issues	
	Pts.
0	15
1	10
2	5

On time Delivery	
%	Pts.
100	20
99	16
98	16
97	16
96	10
95	10
94	10
93	10
92	10
91	10
90	10

Repeat Issues	
	Pts.
0-1	15
2	10
3	5
4	0

% PPM Improvement	
BONUS	Pts.
75 to 100	5
60 to 74	4
45 to 59	3
30 to 44	2
15 to 29	1

ISO 14001	
BONUS	Pts.
Certified	2

AIAG Label STD	
BONUS	Pts.
Approved	1

Returnable Containers	
BONUS	Pts.
Usage	1

SECTION 14 MANAGEMENT QUALITY REVIEW

OVERVIEW

A Management Quality Review meeting is held between the supplier's leadership and an API representative(s). MQR's are recommended when previous steps have failed to resolve the problems.

REASON FOR MQR

An improvement meeting can be called for numerous reasons. The following are a few potential examples:

1. Missing critical start up dates
2. Poor delivery performance
3. Poor SRR (Supplier Rejection Report) responsiveness
4. High PPM
5. Repeat issues
6. Supplier related customer issue

API will notify the supplier of the location, and that their presence is required for an MQR. At the time of notification, the supplier will be notified of the reason for the meeting and provided an agenda.

An MQR is typically held at Alex Products Inc. Where appropriate the MQR will address the following:

- *Introductory comments by API*
- *Reason for meeting*
- *Review of API quality expectations*
- *Review of the supplier's actual performance, key metrics such as:*
 - o *PPM*
 - o *SRR responsiveness*
 - o *Service and delivery*
- *Impact of the supplier's quality problems*
- *Financial liability of the problem including*
 - o *Line downtime*
 - o *Premium freight*
 - o *Sort Costs*
 - o *Etc.*
- *Supplier presentation of Corrective action plan*
- *General discussion*
 - o *Required help from API*
 - o *Key issues*
- *Questions and Answers*

SUPPLIER PREPARATION EXPECTATIONS

The supplier must come prepared to present:

1. An account of how we arrived in this situation
2. Corrective action plans
3. API assistance required
4. Any roadblocks
5. Assurance (noted on the supplier's action plans) that the situation will not arise again

This meeting is an opportunity to solicit help from API in an effort to work together to improve performance.

FOLLOWING AN MQR

As a follow-up activity to the MQR, the supplier is expected to submit an action plan with timing for completion of all open issues. This information is expected within one week and should be sent to the SQE. The supplier is also expected to keep in close contact through the completion of all follow up activities on the open issue list.

SECTION 15

PACKAGING & DELIVERY

OVERVIEW

All quote packages must include packaging material costs, quantity of parts per container, and the container size to be used. The supplier must ensure that packaging is adequate to prevent damage to material. When feasible, returnable containers are encouraged (scorecard point available).

API EXPECTATIONS

Alex Products Inc. has packaging & delivery needs that each supplier must meet. The following list contains specific requirements that suppliers must follow:

1. Each container must contain only one part number or kit
2. Each container must be labeled: see sec. 16
3. Each shipment must be accompanied by a packing slip for both receipt and payment
4. The packing slip must be securely fastened to the container or delivered by the truck driver.
5. The packing slip must contain the following information:
 - a. Supplier name
 - b. API part number
 - c. Quantity
 - d. Purchase order number (specific release preferred)
 - e. Packing slip number
6. FIFO (First In, First Out) method of shipment shall be used.
7. Material Certifications must be provided upon request.
8. Bill of Lading must accompany delivery.
9. API Trucking: Driver wait time or detention time <45 minutes, <30 minutes for drop & hook loads.
10. All paperwork must be accurate and match physical delivery.

SECTION 16

LABELING

OVERVIEW

All purchased parts suppliers are required to label each container. Compliance is mandatory to ensure proper incoming receiving of your product, and for traceability & FIFO.

API EXPECTATIONS

Specific Labeling requirements are as follows:

1. Each container must have a label (4" x 6" AIAG compliant preferred)
2. Each label must contain and clearly define
 - a. API part number – Human Readable & Barcode (code39, others upon request)
 - b. Lot or Heat number (used for traceability)
 - c. Manufacture Date (Julian Date Preferred)
 - d. Revision level
 - e. Quantity – Human Readable & Barcode (code39, others upon request)
3. This label should contain the info required for traceability. Additional labeling (supplier processing labels) containing Lot/Heat/Manufacture Dates should be avoided.

When Alex Products Inc. provides product to a supplier that has an API Approval to Move Tag; the Supplier must complete the Approval to Move Tag that is located on each container.

The supplier will complete the following sections on the API Approval to Move Tag:

1. Operation
2. Date
3. Quantity
4. Approval Signature

The supplier is expected to guard against the following types of errors:

1. Incorrect label on individual containers
2. Wrong quantity on label
3. Missing label
4. Missing information on label
5. Mixed parts
6. Mixed containers

Any mislabeled product received at API will be treated as 100% nonconforming material. Labeling errors are considered process failures and should be well documented on the Process Failure Mode and Effects Analysis. A minimum charge of \$50.00 will be charged for an API associate to correct labeling errors (i.e. Change incorrect or replace missing labels). A DMR will be issued for repeat failures.

SECTION 17

CHARGES

Alex Products Charges

Any charges/costs incurred by Alex Products due to supplier issues at our customer will be passed directly to that supplier with an additional processing cost of \$250.00 (See #6).

Supplier Charges

Alex Products expects to receive 100% quality components, 100% on time delivery and 100% accuracy from our supply base. Anything less than 100% is disruptive and has the potential to increase our cost. The below listed charges are designed to pass those additional costs back to the supplier. In the event that non-conforming material is received the following charges will be levied and corrective action required.

1. SRR Issued: Processing Cost	\$250.00
2. Alex Products sort charge/hour	\$50.00
3. Operator down time/hour	\$50.00
4. Support staff labor/ hour	\$50.00
5. Material handler/hour	\$50.00
6. Customer incurred charges	As charged by customer
7. Overtime to prevent production disruption	\$100.00
8. Break in containment	\$200.00
9. Lost line time	\$ Value of lost production pieces
10. Assembly scrap	\$ Actual piece price
11. Over-ship/Under-ship	\$250.00 per occurrence
12. Late Shipment	\$200.00 per occurrence
13. Expedited freight charges	Cost, plus \$250.00 Processing Cost
14. DMR Issued: Processing Cost	\$250.00

Appendix A

Alex Products

Date:

Subject: Controlled Shipping – Level 1

Dear Supplier:

This letter provides formal notification and confirms discussions held with you, that the part(s) listed on the following sheet, and produced by your facility, have been identified as unacceptable, at the current quality level, for use within Alex Products. Due to our high level of concern for our ability to continue to produce quality assemblies for our customers, your parts are being placed on Controlled Shipping Level 1 effective immediately. The procedures you have enacted to date have been insufficient in stopping the flow of non-conforming material to our plant.

Therefore, you must immediately:

- 1. Implement an action plan to prevent non-conforming material from reaching Alex Products, including 100% inspection of the product,**
- 2. Return the attached “Controlled Shipping Confirmation Reply” that confirms that you received notification and understand the requirements, and**
- 3. Submit your containment and problem resolution plan to Alex Products, Quality Engineer.**

Inability to implement a successful action plan or successful containment will result in Alex Products, (Plant) arranging additional inspections, **at your expense**, (Controlled Shipping – Level 2) to insure that all parts shipped conform to all of our specifications. It is intended that the parts remain in Controlled Shipping until irreversible corrective actions are implemented and confirmed, which makes the continuation of the short-term containment plan unnecessary.

Details on Controlled Shipping are attached for your reference. If you have further questions about this procedure, or our expectations, please contact Supplier Quality Engineer, At (419-267-5240 ext 1012) / Fax (419-267-3815).

Sincerely,

Larry Baldwin
Corporate Quality Manager
Alex Products

LuVena Ripke
Supplier Quality Engineer
Alex Products

Circulation:

Alex Products

Alex Products

Alex Products

Alex Products

Supplier

Supplier

Supplier

Quality Manager

Quality Engineer

Plant Manager

Supplier Quality Engineer

Plant Manager

Quality Manager

Sales & Application Engineering Manager

Note: Controlled Shipping Level 1 inspection is to be conducted for each of the non-conformances listed below...

Part Number	Part Name	Non-Conformances

Exit Criteria:

- Inspection data shows no rejects into the audit area for a minimum of 60 working days after implementation of irreversible corrective action.
- **Implement error proofing within your process for the defect noted above.**
- Repeat shipments must be received with **NO** defects (including defects not being sorted in controlled shipping).
- Evidence that a thorough problem-solving process was used, the true root cause of the problem was discovered, and an irreversible corrective action was implemented by the supplier.
- SPC indicating a stable and capable process during the 60 working days after implementation of irreversible corrective action, including all Ppk requirements being met.
- All paperwork (Process Failure Mode and Effects Analysis (PFMEA), Process Control Plan, flow diagram, etc.) modified and PPAP submission and approval as required.
- A "PASS" status of the exit audit.
- Written authorization, by (Name), Quality Engineer, Supplier Quality Engineer to exit Controlled Shipping.

Supplier Responsibilities During CS:

- Contain all non-conforming parts immediately upon notification of Controlled Shipping status.
- Establish an audit area, which is separated from the normal production area.
- Provide inspection data at a frequency determined by the Alex Products Supplier Quality Engineer (Each Shipment).
- Implement irreversible, permanent corrective action in a timely manner, i.e. implement error proofing.
- Revise all PPAP paperwork as required.
- Pay for all additional costs due to Controlled Shipping.
- Establish and communicate the status of improvement plans with Alex Products Supplier Quality Engineer.

Controlled Shipping Confirmation Reply

TO: Alex Products, Supplier Quality Engineer
19-911 Rd T
Ridgeville Corners, Ohio 43555

FROM:

We acknowledge receipt of your letter, dated (xx/xx/xx), advising us that our above facility has been placed in: (check those that apply)

- Controlled Shipping Level 1
- Controlled Shipping Level 2

- We understand the Controlled Shipping process requirements.
- We *do not* fully understand the Controlled Shipping process requirements.
Please contact: _____ (Name of contact)
_____ (Telephone number)

The following is a description of how conforming parts and shipments will be identified to indicate that they have been qualified as conforming to requirements.

The containment activity will be performed at the following location:

The person responsible for the Controlled Shipping activity:

Name: _____ Fax: _____
Phone: _____

(Signature of Quality Manager or Plant Manager) Date: _____

Appendix B

Alex Products

Date:

Supplier:

Subject: Controlled Shipping – Level 2

Dear Supplier:

This letter provides formal notification and confirms discussions held with you, that the part(s) listed on the following sheet, and produced by your facility, have continued to be identified as unacceptable, at the current quality level, for use within Alex Products. Actions and plans implemented during Controlled Shipping Level 1 failed to contain and correct process problems as indicated by nonconforming material continuing to be received at Alex Products. Therefore, we have decided to **immediately implement Controlled Shipping Level 2**. This containment requires that Controlled Shipping Level 1 inspections remain in place, and your company bear the expense of a third party inspection company for containment and re-inspection of your products until you re-establish suitable process control.

Alex Products S.Q.E. will monitor Controlled Shipping Level 2 activities, by an impartial (ISO Certified) company trained to conduct controlled shipping activities. Details of Controlled Shipping Level 2 will be reviewed at an implementation meeting/conference call, which will be scheduled with Alex Products. It is intended that the parts remain in controlled Shipping Level 1 and Level 2 until irreversible corrective actions are implemented and confirmed, which makes the continuation of the short-term containment plan unnecessary.

Attached are the exit criteria for Controlled Shipping Level 2, as well as the nonconformities that must be addressed. If you have further questions about this procedure, or our expectations, please contact Alex Products S.Q.E. at (419-267-5240 Ext 1012) / Fax (419-267-3815).

Sincerely,

Larry Baldwin
Corporate Quality Manager
Alex Products

LuVena Ripke
Supplier Quality Engineer
Alex Products

Circulation:

Alex Products	<i>Plant Manager</i>
Alex Products	<i>Quality Manager</i>
Alex Products	<i>Quality Engineer</i>
Alex Products	<i>Supplier Quality Engineer</i>
Supplier	<i>Plant Manager</i>
Supplier	<i>Quality Manager</i>
Supplier	<i>Sales & Application Engineering Manager</i>

Note: Controlled Shipping Level 2 inspection is to be conducted for each of the non-conformances listed below...

Part Number	Part Name	Non-Conformances

Exit Criteria:

- Inspection data shows no rejects into the audit area for a minimum of 60 working days after implementation of irreversible corrective action.
- **Implement error proofing within your process for the *defect noted above*.**
- Repeat shipments must be received with **NO** defects (including defects not being sorted in controlled shipping).
- Evidence that a thorough problem-solving process was used, the true root cause of the problem was discovered, and an irreversible corrective action was implemented by the supplier.
- SPC indicating a stable and capable process during the 60 working days after implementation of irreversible corrective action, including all Ppk requirements being met.
- All paperwork (Process Failure Mode and Effects Analysis (PFMEA), Process Control Plan, flow diagram, etc.) modified and PPAP submission and approval as required.
- A “PASS” status of the exit audit.
- Written authorization, by (Name), Quality Engineer, to exit Controlled Shipping.
- Approval to exit CS2 returns the Supplier to CS1 status until CS1 is successfully exited.

Supplier Responsibilities During CS2:

- Implement a daily review process at your facility to study and understand the discrepancies and drive corrective actions.
- Maintain Controlled Shipping Level 1 inspections.
- Contain all non-conforming parts immediately upon notification of Controlled Shipping status.
- Participate in the CS2 Implementation meeting.
- Establish an audit area, which is separated from the normal production area.
- Provide tooling, if required, for the production inspection.
- Provide inspection data at a frequency determined by the Alex Products Supplier Quality Engineer.
- Implement irreversible, permanent corrective action in a timely manner, i.e. implement error proofing.
- Revise all PPAP paperwork as required.
- Pay for all additional costs due to Controlled Shipping, and issue a purchase order to the CS2 source.
- Establish and communicate the status of improvement plans with Alex Products Supplier Quality Engineer.

Appendix C

Shipping Label Sample

PART NO. (P) M2005265			
QUANTITY (Q) 10	DESCRIPTION TOWEL BAR-BENCH		
	ENGINEERING LEVEL	ALEX PART NO.	
SUPPLIER (U) 903457	090	D528	
	P.O. # 55024189		
SERIAL (S) 178930	LOT NUMBER / HEAT NUMBER 10545		
	DATE 11-11-10		
ALEX PRODUCTS-RIDGEVILLE, 19911 ROAD T RIDGEVILLE CORNERS, OH 43555		JA	MADE IN USA

Approve To Move Label Sample

APPROVAL TO MOVE TAG

ALEX PRODUCTS, INC.

SHOP ORDER NO: _____

PART NUMBER: _____

HEAT/LOT NUMBER: _____

OPERATION NO. OR DESCRIPTION	DATE	QUANTITY	ACCUM QUANTITY	OPERATOR APPROVAL