



Supplier Quality Manual

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Introduction

Acro Industries, Inc. is a leading manufacturer of precision sheet metal components and complex electro-mechanical assemblies. In business for over 25 years supplying product worldwide, we are committed to complete customer satisfaction and continual improvement. We have a long history of serving a diverse customer base including military, medical, aerospace, transportation, automotive, agricultural, imaging and office products. Along with a commitment to supply our customers with the highest quality products, Acro Industries, Inc. also provides complete engineering support including product design and design for manufacture activities. Acro Industries, Inc. also provides full project and supply chain management activities for our customers. We are proud to be a “full service supplier”.

ACRO Industries Vision Statement

Acro Industries, Inc. is an agile company, capitalizing on our core business strengths as a provider of quality components and electro-mechanical assemblies; advancing our expertise and resources to offer full systems solutions and services that exceed the customers expectations

Acro Quality Policy

“We, the employees of ACRO Industries, are responsible for the quality of everything we do. We will only accept, work on, or forward any items that meet the standards of ACRO Industries. We are committed to fulfill our customer’s expectations and will do everything in our power to work with the personnel, customers, and suppliers of ACRO Industries to ensure that all standards are consistently met and improved.”

Overview

Acro Industries, Inc. success is in part due to the suppliers of Acro providing products and services that meet our customers and our expectations. We firmly believe that our suppliers are partners in our journey to accomplish both our Vision Statement and our Quality Policy.

It is a goal of Acro Industries to do business with suppliers who are committed to the same level of Quality and Customer Satisfaction that we are. Our goals are simple;

1. ZERO DEFECTS
2. ON-TIME DELIVERY
3. LOWEST TOTAL COST
4. COMPLETE CUSTOMER SATISFACTION
5. CONTINUOUS IMPROVEMENT

We can not achieve these goals without the support of committed suppliers. Acro Industries, Inc. believes in doing business with suppliers who show this commitment through actions and performance.

Purpose

This manual has been put together to clearly communicate the expectations of Acro's Industries to its valued suppliers. Communication and clearly defining requirements are the foundation of a successful business relationship. This manual is intended to provide a documented, consistent communication tool between Acro Industries, Inc. and our suppliers.

Scope

This Supplier Quality Manual applies to all suppliers of products and services to Acro Industries, Inc., which are used in products supplied by Acro Industries, Inc. to our customers. This manual does not apply to suppliers providing Acro Industries, Inc. with MRO items, or products not used in product manufacture.



Acro Industries, Inc. Responsibilities

The Acro Purchasing Manager shall communicate to all Acro Industries, Inc. suppliers the requirement of the need to adhere to the requirements of this manual. As revisions are made to the handbook, the Purchasing Manager shall communicate to suppliers these changes. The Acro Supplier Quality Manual is available via the internet at: www.acroind.com/quality/supplierquality.pdf

The Acro Quality Assurance Director shall ensure all products received into Acro Industries, Inc. under the scope of this manual meet all requirements.

Becoming an Acro Supplier

As part of Acro's overall business plan, we will develop relationships with suppliers committed to aiding Acro Industries, Inc. in reaching its goals, and its customers goals.

Existing suppliers will continue to be part of our Supplier base provided that they meet the requirements as outlined in Section 5 – Supplier Performance Reports.

New Suppliers will be added through a formal process of evaluation. This evaluation will include as determined by Acro Industries, Inc.;

- Recognition of a registered Quality Management System (ISO or TS)
- Completed Self-Evaluation
- On-site assessment

All current suppliers and new suppliers are strongly encouraged to have their Quality Management Systems registered to either ISO 9001:2000, or ISO/TS 16949:2002. Any suppliers to Acro Industries, Inc. supplying automotive products will be required to have a Quality Management System registered to ISO 9001:2000, and have a plan in place for development and compliance to ISO/TS 16949:2002; as well as be capable of meeting all automotive APQP / PPAP requirements.

The primary objective of Acro Purchasing is the timely acquisition of goods and services at the lowest total cost, highest Quality, and on-time delivery. Elements of total cost in addition to basic price include transportation, storage, service, technical assistance, materials management, 24-hour availability, and compatible and correct invoicing. The Acro Purchasing group will evaluate each

of these and other criteria to decide which proposal represents greatest value or lowest total cost to the company.

Supplier Responsibilities

General

Suppliers are expected to read, understand, and comply with all requirements set forth in this manual. In addition they are also expected to fulfill these basic responsibilities;

- To handle all written and personal communications with Acro Industries, Inc. through their Purchasing contact unless instructed by Purchasing, for technical reasons, to do otherwise; in which case Purchasing is to receive copies of all correspondence and be kept informed of any oral communications.
- To negotiate purchasing contracts and all sales with Purchasing only.
- To conduct negotiations ethically, without attempts to influence through offering valuable personal gifts or entertainment.
- To make available through Purchasing or other designated company representatives all available technical, engineering, systems, policies, and services that might improve the company's present or future use of suppliers products and services.
- To advise Purchasing or other authorized personnel of any new products, services, or processes as soon as such information is available.
- To suggest ways and means of conducting joint efforts in research and development that might be of benefit to both companies.
- To inform Purchasing of changes in economic or other conditions which might affect purchasing or operating decisions.
- To inquire through the Purchasing Manager for further information concerned with selling products to the company.
- To participate in annual cost reduction programs as established by Acro Industries and its customers.

Confidentiality Agreement

All suppliers will be required to complete and return to Acro Industries, Inc. a Confidentiality Agreement form prior to being awarded work.

Contract Review

The award of a Purchase Order to you is a binding agreement. To that end, it is the responsibility of the supplier to review all Purchase orders placed with them



issued from Acro Industries, Inc. Suppliers must ensure that the correct part #, revision level, process, or raw material(s) are shipped as directed on the P.O., or any other requirements defined by Acro Industries, Inc.

In addition to other requirements stated in this manual or in the purchase order, Acro Industries, Inc. may specify certain quality records be kept by the supplier for a defined time or these records be sent with the purchased product.

Product shipped to Acro Industries not meeting the full requirements as outlined in this manual will be rejected back to the supplier at Suppliers expense. Supplier is responsible to negotiate in writing with Acro any changes made to any of Acro Industries, Inc. defined requirements. Verbal approvals are not acceptable. Use of the Acro Specification Deviation form is required for any product not meeting all defined requirements.

Quality Management System Documentation and Data Records Access

Acro Industries, Inc., and / or their customers, shall have a right of access to review of any quality management system documentation and / or data records pertaining to any products manufactured for Acro Industries, Inc.

Special Requirements Flow-Down to Sub-Tier Suppliers

Any Special Requirements communicated to our suppliers via. a Purchase Order or other form of Acro documentation must be communicated to any sub-tier suppliers as required.

Quality Requirements

Acro Industries Inc. is on a continual journey to partner with suppliers capable of supplying quality products and services that require minimal inspection once received at our facility. Our goal is for our suppliers to ensure the full compliance of products and services at their facility, prior to shipment to Acro. The requirements set forth in this section will allow Acro Industries, Inc. to be confident the products and services they receive can be used immediately upon receipt.

The requirements set forth will be part of the audit process when products and services are received at Acro. The failure to comply with these requirements will result in the generation of a DMR, affecting the performance rating of supplier. Products will not be processed until these requirements are met fully.

A) Manufactured Components - Typically have custom processes or tooling in their manufacture. Examples include – injection molded products, powdered metal products, machining, turnings, cast, and extruded parts.

B) Electrical Products – Typically have a print with a custom processes or tooling in their manufacture. Examples include circuit boards with or without components, motors, power supplies, and electrical harnesses.

- All product meeting the above two categories A & B shipped into Acro Industries, Inc. for the first time, when a revision level has changed, when tooling has changed, or when a new process is used, must include;
 1. A Part Quality Plan developed and sent detailing at a minimum;
 - Process Flow from Raw Material Receipt to Final Ship(Including Packaging)
 - Control Plan indicating inspection dimensions and when measured in the process, for receiving, in-process, and final inspection.
 2. A Comprehensive First Article Layout including all drawing specifications, notes, materials and finishes. The First Article Layout must clearly show conformance to all drawing requirements. A copy of the numbered blueprint must also be sent, along with the tagged First Article Layout piece for Acro correlation. The First Article Report must include Specification(s), Tolerance(s), Actual Finding(s), and any out of specification dimensions clearly identified.
 3. Any Critical to Function or Key Characteristics as identified on the drawing, or Acro documentation to the supplier, must have a 30 piece Capability Study performed on them. The data must be summarized on a report showing at a minimum the Sample Size, Average, High and Low Specifications, Standard Deviation, and the Cp and Cpk results. Parts must meet a minimum Cpk level of 1.67. Acro Industries, Inc must approve any product with a Cpk level under 1.67 prior to shipment. On going process control must be maintained on these dimensions for the life of the program. For Xerox components only, data must also be provided on a second production run, and a combined sample of one hundred pieces from the initial and second production runs must meet a minimum 1.67 Cpk. This data must be sent with product after a second manufacturing run is complete.
 4. Raw Material and Special Process Certifications indicating conformance to the drawing specification.
 5. In some cases, as identified on the P.O., Acro Industries, Inc. will perform an on-site audit of the manufacturing process prior to approval, or after quality issues have been identified.

6. Further automotive requirements may apply as communicated to the supplier by Acro Quality or Engineering. These may include APQP / PPAP / MSA items.

- All repeat shipments after the above have been met must include a Certificate of Conformance for the quantity shipped in, unless any other data has been requested for an on-going period, indicating full conformance to all print and PO requirements.

C) Raw Materials - Coils, sheets, blanks, or rods/bars/tubing that will be used in the value added manufacture of products at Acro.

- All product falling into the above category C must be delivered to Acro Industries, Inc. with a Certificate of Analysis indicating conformance to the material specification ordered on Acro's P.O. with each shipment. Raw Materials must be traceable to master heat numbers.

D) Plating, Painting, Heat Treating, and Special Processes - Operations or processes performed by another company on Acro manufactured product.

- All product falling into the above category D must be delivered to Acro Industries, Inc. with a Certificate of Compliance indicating conformance to the specification required on the drawing with each delivery.
- Acro packaging and pack methods are to be used for returning parts unless otherwise noted. All parts being coated with Powder Coat, Wet Coat, or being Anodized must be individually wrapped, bagged, or protected in a manner to ensure protection of the coated surfaces through shipment to Acro Industries Inc.

E) Catalog/Hardware Items – Off-the-shelf catalog and/or distributor purchased item. Examples include Pem hardware; screws, nuts, washers, cable ties and standard electrical components.

- The product ordered on the Acro P.O. must be identified on the packing list received with the product.

F) Temperature & Shelf Life Sensitive Material - For all shelf life sensitive material, Supplier shall provide certifications for temperature, perishable and age sensitive materials (e.g. epoxies, paints, bonding agents, adhesives, tapes



etc.), which reflect date of manufacture, date of test, shelf life, expiration date and storage temperature as it applies to each lot/batch.

Container label(s) must also reflect applicable lot/batch number(s), storage temperature, expiration date and date of manufacture.

Product delivered to ACRO Industries must have a minimum of 80% remaining of shelf life upon receipt or may be rejected and sent back to Supplier for replacement material.

PRODUCT KNOWN TO BE OUT OF SPECIFICATION, OR HAVING LESS THEN REQUIRED CPK LEVELS MUST NOT BE SHIPPED TO ACRO INDUSTRIES, INC. WITHOUT FORMAL APPROVAL IN WRITING USING THE ACRO SPECIFICATION DEVIATION FORM.

Delivery Requirements

- Product is considered ON-TIME if received at Acro Industries;
 - A) No more than five (5) days early, and zero (0) days late from Acro Due Date.
 - B) Line Item is delivered complete, not a partial shipment.
- A packing list must be included with every shipment. The packing list will indicate Acro P.O.#, Part #, Quantity Shipped, and due date of P.O.
- All products must be shipped as directed on the Acro Purchase Order. Acro Industries, Inc. will determine carrier as identified on the P.O.
- Just-In-Time scheduling for products identified by Acro Industries, Inc. will be required.
- All product must be labeled with the correct part #, quantity, and applicable revision level on the shipping container labels. Product received with incorrect information on them will result in a DMR, affecting the supplier performance report.

Supplier Performance

- Acro Industries, Inc. measures all Suppliers performance based on Quality and Delivery performance. Acro creates and reviews quarterly Supplier Performance Reports. Any supplier that does not meet Acro's goals may be requested to complete and submit a corrective action plan.

- Suppliers not meeting Acro's performance goals may be in jeopardy of losing existing and future business if a Corrective Action plan and improvement are not implemented or effective.
- Suppliers are strongly encouraged to take proactive measures to ship defect free, on time, and support Acro Industries, Inc. with the highest level of Customer support.

Corrective Action/DMR

Acro Industries, Inc. operates on a Zero Defect policy. Any defective product found at Acro Industries, Inc., or our Customer, on a Supplier product will result in the following.

- Product will be immediately quarantined, and the Supplier contacted. The Supplier then has the option to;
 1. Immediately replace product at Acro with "Certified" product, checked and verified to not have the known defect, or
 2. Sort or Rework the product at AcroAny sorting, rework, down time, extra shipment, extra rework operation, or misc. charges resulting from defective product at Acro will be charged back to the Supplier. This includes any assembly tear down charges, and Customer charges back to Acro.
Any similar product at the Supplier, or in-transit to Acro must be identified to Acro, and also quarantined.
- The Supplier will be required to continue to send in product "Certified" with documentation until a Root Cause Analysis and Corrective Action Plan have been done and implemented. Acro will provide a Corrective Action packet to the Supplier for completion. Failure to complete and return a Corrective Action will affect the Suppliers Performance Report.

Government, Safety and Environmental Regulations

All purchased materials used in part manufacture shall satisfy current governmental and safety constraints on restricted, toxic and hazardous materials: as well as environmental, electrical and electromagnetic considerations applicable to the country of manufacture and sale.

Environmental Policy

Acro Industries is committed to providing a quality service in a manner that ensures a safe and healthy workplace for our employees and minimizes the potential impact on the environment. We will operate in compliance with all relevant environmental legislation and we will strive to use pollution prevention and environmental best practices in everything we do.

We will

- Promote environmental awareness among our employees and encourage them to work in an environmentally responsible manner.
- Train, Educate and inform our employees about environmental issues that may effect their work.
- Reduce waste through re-use and recycling as well as purchasing products that use recycled and or re-furbished products where these alternatives are available, economical and suitable
- Promote efficient use of materials and resources throughout our facility including water, electricity, raw materials and other resources especially those that are non – renewable.
- Avoid unnecessary use of hazardous materials and products and seek substitutions when feasible, take all necessary steps to protect human health and the environment when such materials must be used, stored or disposed of.
- Where required by legislation or where significant health, safety or environmental hazards exist, develop and maintain appropriate emergency and spill response programs.
- Communicate our environmental commitment to clients, customers, and employees.
- Strive to continually improve the environmental performance by periodically reviewing our environmental policy in light of our current and planned future activities.

Supplier Quality Manual Revision

Revision	Approval	Changes	Date
A	A. Caruso	Original	11/30/01
B	A. Caruso	Changes to section's 5 & 6	01/10/02
C	A. Caruso	Extensive changes / rewrite for QS requirements and QS project implementation.	12/23/02
D	A. Caruso	Added section on Government, Safety and Environment Regulations	01/21/03
E	A. Caruso	Under "Becoming an Acro Supplier", replaced ISO 9000 with ISO 9001:2000, and QS 9000 with ISO/TS 16949:2002 to align with TS registration requirements.	03/06/03
F	A. Caruso	Changed QS reference to TS reference under "Becoming an Acro Supplier, added Confidentiality Agreement Verbiage under "Supplier Responsibilities"	06/07/04
G	A. Caruso	Added " ACRO PACKAGING AND PACK METHODS ARE TO BE USED FOR RETURNING PARTS UNLESS OTHERWISE NOTED. ALL PARTS BEING COATED WITH POWDER COAT, WET COAT, OR BEING ANODIZED MUST BE INDIVIDUALLY WRAPPED, BAGGED, OR PROTECTED IN A MANOR TO ENSURE PROTECTION OF THE COATED SURFACES THROUGH SHIPMENT TO ACRO INDUSTRIES INC. " to page 8.	7/18/07
H	A Caruso	Page 6 contract review: added new quality record requirement, added Acro or it's customers have right of access to supplier documentation and records pertaining to Acro or Acro customers, added any special requirements communicated to Acro suppliers must be rolled down to sub-tier suppliers	10-9-08
I	A. Caruso	Revised Supplier Evaluation Section.	09/07/12
J	C. Weiser	Added Environmental policy-page 11	01/06/15
K	C. Weiser	Added F) Temperature & Shelf Life Sensitive Material	3/28/16