

AGILITY SUPPLIER QUALITY MANUAL

Thank you for your desire to become an approved Agility Supplier. This manual will provide you with all of the basic information needed to understand our quality requirements. We believe that our suppliers are our business partners in success, and we know that compliance with these requirements will help us both.

SUMMARY:

This document is intended to serve as a reference to better understand our requirements and your role in the shared responsibility to deliver the highest quality and safety.

- APQP is our method for assuring quality assurance planning and prevention of quality issues.
- PPAP approval is required for all new parts and for changes on existing parts or processes.
- If the PPAP contains known nonconformities when submitted, this must be clearly stated by the supplier in the comments section of the PSW.
- Parts for PPAP must be produced using Production (serial) equipment (including part specific fixtures, gauges, instruments and other equipment) and with documented production procedures.

AGILITY QUALITY POLICY:

Agility Fuel Systems provides natural gas fuel systems and services that meet or exceed our customer expectations. We achieve this by promoting a continuous improvement approach at all levels of the organization.

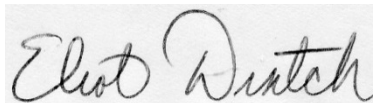
PURPOSE:

This manual defines the supplier's responsibility for compliance to Agility quality requirements.

SCOPE:

This applies to suppliers of production material, tooling, or services to any Agility facility. The Quality Manager is responsible for ensuring these policies are implemented and maintained. This policy statement is reviewed for suitability to the on-going operations of Agility on a periodic basis.

Eliot Dratch, Quality Manager



Date 4/21/14

Agility Safety Policy and Philosophy

Agility views product safety as one of our core values. Our safety policy is simple - strive to protect human health and continually improve all aspects of safety in our work practices, products and services. We encourage all employees to contribute to the fulfillment of our Safety Philosophy by increasing awareness and knowledge in all aspects of our jobs.

The safety and quality of our products and services must never be compromised. Our products are designed not only to meet or exceed applicable laws and regulations, but be continually improved for all concerned parties.

Each Agility team member plays a role in making safety-minded thinking part of our jobs and integrating that approach into the design, manufacture, operation, service and life-cycle of our products. To support this, we have integrated Advanced Quality Planning into our Quality Program and promote the use of world-class product and process:

- Design FMEA
- Process Flow Charting
- Monthly Operation Reviews
- Code Compliance Reviews
- Cross-Functional 8D Reviews
- Risk Mitigation Procedures that apply to Critical Characteristics

As part of Agility's Management Review Process, we review safety-related items as a priority. Management Reviews are one part of our Executive Committee Review, which gives product safety the highest level of attention.

Built-In Quality

We use the Agility Quality System (AQS) and its key processes to deliver high quality, conforming and safe products that meet or exceed required standards. Priorities are to be based on achieving the greatest anticipated safety benefit that is practical. To that end:

- R&D will develop manufacturing innovations that that enhance people's safety.
- Agility will address all service and production safety concerns in a timely manner.
- We will openly cooperate with other interested parties to promote safety and the use of safe practices.
- We will actively protect the safety of our employees, customers, end-users and the general public.
- We will operate our business in a manner that consciously safeguards our stakeholders.
- We will promote a safety awareness that fosters an ownership-driven culture among employees, contractors and our suppliers.

ABOUT AGILITY

We work to improve our organization every day. We are committed to Quality excellence, lean initiatives, customer-focused processes and continuous improvement. We expect our suppliers to adopt these principles and demonstrate their commitment through:

- Delivery of conforming parts
- On time delivery
- Rigorous adherence to approved processes and requirements
- Proactive risk management

BASIC SUPPLIER REQUIREMENTS

Suppliers must either meet or show work toward the following Quality Assurance requirements:

- 3rd party Registration to ISO 9001, TS 16949, AS9100 or
- Completion of the Agility Quality Assurance Supplier Self-Survey with a satisfactory score and agreement to achieve 3rd party registration to ISO 9001 or ISO/TS 16949 within one year.

SELF SURVEYS and ON-SITE ASSESSMENTS

Suppliers are evaluated through self-surveys or on-site assessments. A self-survey will be provided to the supplier for completion. Agility management scores the assessments. An on-site assessment results in classification of the supplier into one of three categories:

<p>High or 80-100% Suitable in principle as supplier to Agility</p>	<p>Certain suppliers may be exempt from certification requirements depending upon the nature and / or quantity of product supplied. Examples of exempt suppliers are:</p> <ul style="list-style-type: none"> • Low volume suppliers • Suppliers of prototype parts • Discretion of Corporate Quality • Exempt suppliers are not exempt from performing PPAP.
<p>Medium or 50-79% Could become a suitable supplier with support</p>	
<p>Low or <50% Not suitable as a supplier to Agility</p>	

FLOW DOWN

Agility products have always been characterized by their quality and safety. Maintaining the reputation of selling high quality and safe products is nonnegotiable.

We expect our suppliers to support us in maintaining this reputation through the care they invest in the parts they produce and deliver. As an Agility supplier, it is expected that the requirements in this manual will be passed onto your sub-tier suppliers to ensure that their quality is consistent through the entire supply chain.

SUPPLIER CODE OF CONDUCT

Suppliers shall ensure operations are being performed in a manner that is appropriate, as it applies to their ethical, legal, environmental, and social responsibilities. Below is a listing of Agility's basic requirements:

Compliance with Local Laws and Regulations. Suppliers must adhere to the laws and regulations in the locality in which they reside. This includes all local, state, and federal laws/regulations in the country of origin.

Compliance with Environmental, Health, and Safety Laws. The Supplier must maintain and operate its manufacturing/production facilities and processes in accordance with local, state, and federal laws/regulations in the country of origin.

At no time shall any Agility person be exposed to hazardous materials or unsafe conditions as a result of Supplier shipments to an Agility location, or while visiting a Supplier's location. For items with inherent hazards, safety notices must be clearly visible. As applicable, documented safety handling and protection information must be provided.

Product Safety. In all instances where a product is manufactured to a new design, for a new system, or for a new application, it is important that Supplier and Agility allocate responsibility for assuring that all performance, endurance, maintenance, safety and warning requirements are met. It is preferred that this allocation of responsibility be in writing.

Non-Discrimination. Suppliers shall not discriminate against race, color, sex, religion, age, physical disability, political affiliation, or other defining characteristics as prohibited by local, state, and federal laws/regulations in the country of origin.

Labor. Child Labor – Suppliers shall employ workers of minimum legal age in accordance with local, state, and federal laws/regulations in the country of origin. Child labor laws must be followed.

Forced/Indentured Labor – Suppliers shall not practice the use of forced or indentured labor.

Work Hours/Days – Suppliers shall not exceed the daily and weekly working hours as permitted by local, state, and federal laws/regulations in the country of origin.

Wages and Benefits – Suppliers shall compensate workers in accordance with local, state, and federal laws/regulations in the country of origin. This includes minimum legal wage, overtime wages, and benefits (required by law).

Ethics. Evidence of corruption, bribes, improper advantage, or any other form of illegal practice by the Supplier or associated operations will terminate all relations with Agility. Suppliers will conduct their business in a manner that meets the 'Code of Ethics' policy of Agility.

Confidentiality. The Supplier shall ensure the confidentiality of Agility-contracted products and projects under development, and related product information, as well as intellectual property shared as a result of the working relationship.

AGILITY IMPOSED QUALITY REQUIREMENTS

PRODUCTION PART APPROVAL PROCESS (PPAP)

Purpose: To determine if all customer engineering design record and specification requirements are properly understood by the supplier and that the process has the potential to produce product consistently meeting these requirements during an actual production run.

Scope: This applies to suppliers of production material or tooling to any Agility facility.

Process: Production part approval is required as defined in "Production Part Approval Process" (PPAP) published by the AIAG. All applicable elements are to be completed and retained on file at the supplier's location. When a sample part is requested, copies of the PSW, Dimensional Report, and FAI marked print must accompany the sample part(s). Parts such as standard fasteners, fittings, raw materials, components of an assembly, etc., are defaulted to approved status.

Approval of submitted samples and/or documentation is required prior to supplying production volumes unless a documented waiver is obtained from Agility Quality. Interim approval may be granted if the supplier's root cause, action plan, and timeframe are acceptable to the appropriate production part approval activity. If a supplier fails to complete PPAP prior to the start of production, they must comply with the following exceptions:

1. All parts shipped to Agility must be 100% inspected.
2. All characteristics per the drawing must be inspected and conform to specifications.
3. If parts do not conform to specification, contact Agility Quality prior to shipping parts.
4. Records of the required inspection described above must be maintained by the supplier and be made available to Agility Quality upon request.
5. Agility reserves the right to review and/or audit all supplier PPAP records.
6. Sample submissions are to be adequately labeled and tagged by the supplier.

STATISTICAL PROCESS CONTROL (SPC)

Purpose: To define the suppliers' responsibility for collecting, analyzing and reporting statistical data.

Scope: This applies to suppliers of production material and tooling to all Agility plants.

Procedure: Suppliers are required to review all Agility drawings and specifications to determine if Key Characteristics are present. All dimensions designated as such, or features specified by the Agility Quality Engineer, must meet the process capability requirement of CPK greater than or equal to 1.67.

Suppliers must include Key Characteristics on Process Control Plans and apply appropriate SPC techniques. They are expected to identify and use SPC as appropriate on all incoming parts and materials that are used in the production of components, parts, and assemblies for Agility.

Variable measurement tools used to demonstrate conformity to key characteristics must pass a Measurement System Analysis utilizing the Analysis of Variance (ANOVA) method. Suppliers must maintain records of those activities and Agility reserves the right to audit these records.

CORRECTIVE ACTIONS

Purpose: To define the suppliers' role and responsibility in the corrective action process.

Scope: This applies to suppliers of production material, tooling, or services to any Agility plant.

Process: Agility may decide to issue a Corrective Action Request (CAR) to suppliers based on any of the following criteria: (a) Monthly reject report, (b) Specific incident, (c) Reports from plants (d) the Agility Quality Department determines that a corrective action needs to be issued.

SUPPLIER APPROVAL PROCESS

Agility requires all Suppliers to be approved. An assessment may be performed that may include:

- a) Initial Assessment: Agility may request the Supplier to provide a copy of its quality management system certificate or complete a self-assessment of its business and quality management system and capabilities (i.e., quality, delivery and continual improvement objectives).
- b) Documentation Audit: Where a Supplier's quality system has not been certified by an accredited registrar, Agility may perform an assessment to determine if the Supplier's quality management system meets our requirements.
- c) On-Site Assessment: Agility Quality may elect to conduct on-site assessments of a Supplier's product or process capabilities. These assessments could include: their Quality Management System (QMS) to determine whether the Supplier's quality management system is functioning effectively.
- d) Business and Manufacturing Operations Assessment: To determine whether the Supplier has the financial resources, production capacity, and other business resources needed to fulfill Agility volume production needs and continuity of supply.
- e) Continual Improvement Initiatives: To determine if the Supplier's culture, methods and skills are present to actively pursue continual improvement.
- f) Technology Assessment: To determine whether the Supplier has the needed technical resources, including production and inspection equipment, facilities and engineering resources.
- g) Supplier Control: To evaluate the effectiveness of the Suppliers sub-tier management to ensure that products procured from sub-tier sources conform to all applicable requirements.

SUPPLIER DISQUALIFICATION / DELISTING FROM APPROVED SUPPLIER LIST

Purpose: To define the criteria by which suppliers are removed from the Agility Approved Supplier List.

Scope: This applies to suppliers of production material, tooling, or services to any Agility plant.

Process: Agility Quality maintains criteria for determining the disqualification of suppliers. The following are criteria that Agility Quality uses to assess:

- (a) Supplier fails to maintain ISO 9001 or ISO/TS 16949 registration.
- (b) Supplier continually fails to respond to Corrective Action Requests.
- (c) Supplier has an unacceptable rejection rate and there are minimal/no signs of improvement.

QUALITY MANUAL

The Supplier shall furnish Agility with a copy of their Quality System Manual, which is to be current and approved by the Supplier's management. The manual shall include statements of a quality policy and quality objectives. Top management shall define quality objectives and measurements which should address customer expectations and be achievable within a defined period of time.

FIRST ARTICLE INSPECTION (FAI)

As a minimum, a First Article Inspection (FAI) is required to initially qualify a part for Supplier approval, unless the PPAP process is used. The FAI requires that all features on the design and control plan be inspected prior to production. For First Article Inspection guidance, see the AIAG PPAP Manual. In addition to an FAI, Suppliers shall develop a Control Plan by identifying special product and process characteristics that are key to achieving quality. The Supplier shall also include any special characteristics designated by Agility in the drawing.

SUPPLIER CHANGE REQUESTS

Suppliers shall not make changes to their processes, location, facilities, equipment, material, product design (or any change which may affect product design or function) without written approval from Agility Quality.

To request a permanent engineering change, the Supplier shall use the Part/Process Change Notification form. To request a one-time or temporary deviation, Suppliers shall use Agility's Supplier Deviation Request Form. (These forms are available from Agility).

CONTROL OF NONCONFORMING MATERIAL

For nonconforming products supplied to Agility, including those that reach an Agility customer, the Supplier must cover all costs to correct the nonconformance.

SUPPLIER REQUEST FOR NONCONFORMANCE DEVIATION

A Supplier shall not knowingly ship product that deviates from the drawing, specs, or design intent without prior written authorization from Agility. If such a condition exists, the Supplier may petition Agility, in writing, to allow shipment of the product under a written non-conformance deviation. The Supplier shall use Agility's Supplier Deviation Request Form.

Agility approval of a deviation is specific to the products for which it has been submitted and approved and shall not to be construed as a permanent engineering change. The Supplier must begin work immediately on corrective action. In all cases, the Supplier shall fully contain all product suspected of being nonconforming.

Any parts shipped that have been approved for deviation shall be clearly identified externally on the box and shipping documents. Each box shall contain a copy of the approved deviation document.

SUPPLIER CONTAINMENT and CORRECTIVE ACTIONS

For product quality problems reported by Agility to the Supplier, until formal corrective action has been taken and approved, the Supplier shall provide documented evidence with subsequent shipments that such product has been inspected and meets all quality requirements.

Preservation, packaging, labeling, and shipping methods must comply with common industry practices and Agility requirements specified on the contract.

CORRECTIVE ACTION REPORT

Agility may request a Corrective Action Report (CAR) to the Supplier when nonconforming material is found. The Supplier should submit a Corrective Action Report that includes the underlying reasons:

- a) Why the specific nonconforming condition or incident occurred,
- b) Why it was not detected by their quality controls, and
- c) Why the process allowed the nonconformance (and potentially others like it) to occur.

The Supplier should apply these criteria to determine whether the root cause has been identified:

1. It initiates and causes the event you are seeking to explain.
2. It is directly controllable.
3. The elimination of that root cause will result in the elimination or reduction of the problem.

Supplier statements indicating that the corrective action is to alert or retrain the operator, or increase inspection, alone, are NOT acceptable. These kinds of actions do not address the underlying root cause(s) of why the Supplier's system allowed the problem to not be detected by quality controls.

PARTS PRESERVATION

In order to detect deterioration, the condition of product in stock should be assessed at appropriate planned intervals. The Supplier should use an inventory management system to optimize inventory turns over time and should assure stock rotation, such as "first-in-first-out" (FIFO).

PACKAGING

The Supplier must adequately plan for packaging designed to prevent product contamination, deterioration or loss and to eliminate shipping damage. Suppliers should provide expendable packaging or returnable containers that provide for sufficient density and protection from damage. Expendable packaging must meet local and national standards for safe disposal and recycling.

LABELING

Labeling and bar code requirements may vary among Agility divisions. The Agility Program Manager will provide the Supplier with the necessary specifications.

PERFORMANCE MEASURES

QUALITY RATE

The Quality rate formula defines the Rejected Parts per Million (RPPM). The target rate and associated ratings are set on a per-supplier basis. The definition of “rejected parts” is the total number of parts returned to the supplier for any valid quality reason (including shipping and administrative errors):

$$\text{RPPM} = \frac{\text{Number of Parts Rejected}}{\text{Number of Parts Received}} \times 1,000,000$$

The following table describes the resulting actions for varying RPPM performance levels:

Excellent	Meets requirement set by Agility
Good	Satisfactory; no action required
Marginal	Systemic corrective action may be required
Unacceptable	Systemic corrective action is required and may require Supplier to meet with Agility management representatives.

DELIVERY

This metric defines the delivery performance rating. The associated OTD ratings use the following formula: “On time” is based on the contract date taken from the PO.

$$\text{Delivery} = \frac{\text{Number of Parts Received "On Time"}}{\text{Number of Parts Received}} \times 100$$

The following table describes the resulting actions for varying Delivery performance levels:

Excellent	98%	Meets requirement set by Agility
Good	90%	Satisfactory; no action required
Marginal	85%	Systemic corrective action may be required
Poor	80%	Systemic corrective action is required and may require Supplier to meet with Agility management representatives.

CERTIFICATES OF CONFORMANCE (COC)

A signed CoC by the Supplier’s head of quality (or the authorized delegate) attesting that all products and/or services delivered are in compliance with all requirements shall be furnished with each shipment to Agility. The CoC shall include:

- a) Supplier Name
- b) Part number
- c) Drawing or specification revision
- d) Agility contract / order number
- e) Packing list/shipper number
- f) Quantity delivered

DELIVERY

The Supplier should systematically inform Agility of any delay in delivering product and provide a new dispatch date. The Supplier is responsible for additional transport costs due to delays.

PART MARKING and LOT TRACEABILITY

All suppliers to Agility shall have an effective lot definition and traceability procedure. The shipper number will be traceable so that the delivered product can be traced back from receipt, through processing and then final shipment to Agility. The Supplier will adhere to the part marking identification requirements specified on the part drawing and purchase order and can request a copy of the Agility Part Marking Procedure AQS PPM-7.3.8.

Product must be controlled and rotated by Lot Order. Product is to be stored in a designated location to ensure FIFO processing. Once manufacturing/assembly begins, a lot number is changed if:

- One shift of production or eight hours is reached.
- The lot number changes on the raw material being used.
- When components undergo another value added process and original lot is divided during process.

SPECIAL CHARACTERISTICS (Key Characteristic Designation System KCDS)

While all characteristics of a part are required to conform to specifications, there are a few characteristics that are selected as special characteristics. The selection criteria and guidelines related to special characteristics are based on the Agility Procedure, AQS-KCDS-ENP-076. It explains how special *safety* or *manufacturing* characteristics should be identified in the supplier's drawing or technical document. For all special characteristics, the following requirement applies:

In addition to the special characteristics identified in Agility drawings or technical documents, suppliers must identify any special characteristics related to their product. Suppliers should communicate their standards for selecting and ranking critical or key characteristics and the methods used for designation on drawings. Suppliers shall also define any special considerations for handling, assembly, application, capability or use required to ensure safe, reliable performance of the product.

	Safety Characteristics	Critical Manufacturing Characteristics
Supplier's Process is demonstrated to be under statistical control, normally distributed	Process Capability Index (Cpk) ≥ 1.67 Checking frequency demonstrates: <ul style="list-style-type: none"> • On-going process control • Compliance to Cpk requirement 	Process Capability Index (Cpk) ≥ 1.33 Checking frequency demonstrates: <ul style="list-style-type: none"> • On-going process control • Compliance to Cpk requirement
Preferred Alternative	<ul style="list-style-type: none"> • Automated poke yokes • Effectiveness verified each shift 	<ul style="list-style-type: none"> • Automated poke yokes • Effectiveness verified each shift
Acceptable Alternative	<ul style="list-style-type: none"> • 100% full inspection • Documentation chain traceability from PO to drawing to process to training 	100% process check