

Supplier Quality Assurance Requirements



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Supplier Quality Assurance Requirements

2. Purpose

This document outlines key requirements & guidelines for all suppliers who supply to Air Radiators Plants.

Compliance to the requirements and guidelines will guarantee a supplied product that will add value and service to our plants and end customer for continued business.

3. General Requirements

3.1 Supplier Quality Management System

The supplier shall maintain a system that maintains integrity within its manufacturing process and quality of its products. AR preference is to select a supply base which complies with the ISO-9001:2008 Quality System Requirements or statement above. The Certification shall be provided prior to Contract being awarded and/or when recertification has been granted.

Suppliers providing "Value Add" product that are not certified by a suitably recognized third party, should demonstrate a system or history that provides evidence of a process that is capable of servicing a product that meets Air Radiators Design & Specification requirements.

In place of this, additional certification maybe required in way of and not limited to: Product Validation / Compliance Certification as agreed to by Air Radiators Engineering and/or Quality team. Or via an assessment process outlined in section 6 of this manual.

3.2 Acceptance of the Requirements and Guidelines

Acceptance of this document and the requirements/guidelines is made via agreement to supply Products / Services to each Purchase Order and/or where a Contract Agreement is applied.

3.3 Cessation of Certification

If for any reason the certification to a national accredited body is revoked Air Radiators Procurement must be kept informed immediately.

4. Product / Process

4.1 Customer Approval

Prior to commencement of Volume Production written approval needs to be given by Air Radiators Quality and/or Engineering.

4.2 Supporting Data for Customer Approval

The process to approve supplied product must be in way of the supplier completing and supplying supporting data: Material / Composition Certification – Raw material, Material Performance, Dimensional Capability. A form of fitment and functionality must be tested by the Customer prior to volume production.

The supporting data should reference the Part Number, Drawing No and Revision, Part Name, Date of Manufacture and Test & Inspector's signature.

4.3 Non Compliance of Initial Product Validation

Any deviation from the design specifications need to be agreed to by Air Radiators Engineering by way of written approval in a Deviation format or Design Specification Change prior to Volume Production.



4.4 Inspection Controls

Suppliers to Air Radiators are expected to have in place adequate Inspection Procedures for management of goods within Incoming, in Process and Outwards goods.

Suppliers must ensure all goods undergo a form of inspection prior to despatch that does not allow the product to have any fit, form, function or durability concerns.

4.5 Material Traceability

All products shall be identified for traceability purposes. This can be done by on the product itself (location in agreement with Engineering on drawing). If impractical due to size, material then by way of Label on Packaging.

Identification must comprise as a minimum of Part Number and Revision, Product Name, Date of Manufacture, Supplier Name.

4.6 Record Retention

Product Validation data must be retained in a safe environment from damage for a minimum life of 10 years. Upon request Records shall be made available to support product and Traceability.

4.7 Customer Supplied Product or Tooling

Where products made or directed by the Customer to the Supplier all due care must be taken whereas the product shall not deviate in design, construction or finish as received, that may affect fit, function or finish.

Whereas Tools made or funded by the Customer the supplier shall have in place a maintenance plan to hold Tool integrity until shelf like has been reached. Where the Tools are about to reach life expectancy or Part integrity is at risk the Supplier Shall notify the Customer.

5 Reporting of Non-Conforming Products

5.1 Supplier Found Non Conformances

Supplier shall provide written notification to Buyer within 24 hours' notice, when a Non-conformance is determined to exist, or is suspected to exist. Notification shall include the following information:

- Affected process or product number, name, Batch and Date of Manufacture.
- Applicable purchase order number(s), quantity, and dates delivered
- Description of the problem (i.e., what it is and what it should be, with pictorial evidence);
- Suspect/affected serial number(s) or date codes, when applicable
- Proposed Containment actions/requests (i.e., units to be checked, recording required,
- method of inspection, etc. using a Non Conformance / Corrective Action report.
- Third Party Inspection support

5.2 Customer / End User Found Non Conformances (on line, in service / in field)

Air Radiators shall provide written notification in way of an NCR to supplier as soon as practically possible, when a Non-conformance is determined to exist, or is suspected to exist, in plant or infield.

Notification shall include the following information:

- Affected product number, name, Batch and Date of Manufacture.
- Applicable purchase order number(s), quantity, and dates delivered
- Description of the problem (i.e., what it is and what it should be, with pictorial evidence);
- Suspect/affected serial number(s) or date codes, when applicable
- Proposed Containment actions/requests (i.e., units to be checked, recording required, method of check, etc. using a Non Conformance / Corrective Action report.
- Third Party Inspection support



5.3 Warranty Concerns

Were a warranty concern may take place Air Radiators are responsible to notify the supplier of the failure mode/non-conformance, quantity, product no. and name, date of manufacture/batch no, location in field, potential exposure.

The supplier shall be responsible in creating containment of all raw/work in progress/assembled and in finished goods in service with associated Breakpoints on any added inspections or corrective actions.

5.4 Corrective Actions

If a formal Non Conformance is raised as per paragraphs 4.1, 4.2, 4.3 the supplier is responsible to take the following action:

- Within 8 hours implement Inspected Containment in place at their plant / Customers plant to the point of where issue is found to affect Fit/Function/Finish.
- Within 24 hours report back the findings of Containment effectiveness & potential root cause
- 1 week implement corrective actions

6 Supplier Assessments

6.1 Supplier Assessing

As part of appointing a new supplier to Air Radiators an assessment shall be undertaken.

This can be done in two ways:

- <u>Self-Assessment</u>: The supplier will self-assess their business according to the "self-assessment form" and return this to Air Radiator Buyer for review.
- <u>On site Assessment</u>: Air Radiators representative will conduct an on-site assessment of the potential supplier in way of a Process Audit.

From the above Assessments once agreed by Buyer and/or Quality Manager the supplier maybe added to the Preferred Supplier List.

If deemed a critical necessity Air Radiators shall also assess sub tier suppliers with due notice.

It is the responsibility of the 1st tier supplier to control and maintain their sub tier suppliers

6.2 Supplier Monitoring

As part of Continuous Improvement of performance each supplier shall be monitored for "In Full on Time" Delivery and Part Compliance. Were required the supplier shall be notified of its performance and service to Air Radiators

6.2 Supplier Auditing

A supplier Audit may be performed on site for the following reasons:

- Supplier significance pre new supplier assessment
- Supplier Performance Non Conformances, IFOT Rating concerns
- Supplier Process / Material Changes

6.3 Access to Supplier & Sub - Tier Suppliers

The Supplier shall grant access to representatives of AR and AR's customers, regulatory authorities, at all reasonable times for the purpose of product verification and quality system; process; and product audit activities. Such access shall include Supplier's sub –tier suppliers.



7 Commercials & Communication

7.1 Cost of Quality

Where a "cost of quality" has been incurred by Air Radiators associated to the failure of the supplier (that has been found due to a Non Conformance investigation) all associated cost will be recovered.

This could relate to Labour/Plant Down time, replacement parts/assemblies, injury, premium freight, warranty, unplanned inspection, agreed rework, equipment damage, rejected parts.

7.2 Communication

Supplier shall ensure early communication to Air Radiators for any of the following:

- Change of Ownership to the business
- Change of Key personnel
- Short / Late / Non / Supply
- Suspect Supplied product
- Industrial Action / Approaching EBA
- Process physical or location

8 Prohibited Practices

8.1 Changes to Product or Materials

Supplier shall not make any changes in product design, composition, configuration or fabrication without prior approval by Air Radiators Engineering in writing.

The Supplier shall not substitute and/or deliver material of alternate specification or having mechanical and or chemical properties in variance to the Buyer's specification without prior written approval by the Buyer.

Supplier shall flow this requirement down to Suppliers sub tier suppliers.

8.2 Unauthorised Repairs and Rework

Suppliers may not repair in any way parts damaged or found to be faulty during fabrication nor repair defects in castings or forgings by any method, unless the Technical Data Pack pre defines and allows such action, until authorized by the Buyer in writing.

Supplier rework of parts is permitted without Buyer authorization but only in accordance with the definition stated

9 Customer Supplier Products

9.1 Control of Customer Supplied Materials

The supplier shall be responsible to control and maintain all Customer Supplied Materials safely and securely. The Supplier shall notify the Buyer of any loss or damage to supplied Customer Supplied Materials. At completion of work the Supplier shall return all unused Customer Supplied Materials to the Buyer.

9.2 Source Controlled Suppliers

When materials or goods are required to be procured from a controlled source, which is either listed on a drawing or in a technical specification, the Supplier shall procure the goods or materials from the Manufacturer and the specific facility listed on the drawing or in the specification. The Supplier shall not



procure or supply materials or goods from other facilities owned by the manufacturer listed on the drawing or in the specification.

Definitions & Abbreviations

Order	The Purchase Order – written agreement with Supplier to procure certified goods
Buyer	Air Radiators Purchaser of Ordered Goods
Supplier	Legal entity that contracts to sell certified goods to Buyer
Drawing	Technical format with applied instructions to which an Order is placed
Specifications	Specific Technical requirements to support Drawings
NCR	Non Conformance Report
Deviation	Formal Document seeking approval to supplied outside of Drawing and/or Specifications
CSM	Customer Supplied Material – source by the Customer for the Supplier

Order The Purchase Order – written agreement with Supplier to procure certified goods