

Grede Holdings LLC – All Locations

Supplier Quality Manual

1. Policy

- 1.1. It is Grede's policy to conduct business with suppliers that continually demonstrate the ability to provide products, processes and services that meet or exceed Grede quality requirements.
- 1.2. Grede requires:
 - 1.2.1. Defect free products and services
 - 1.2.2. 100% On time delivery
 - 1.2.3. Continual improvement
 - 1.2.3. Competitive pricing
 - 1.2.4. Responsive customer service
- 1.3. Advance notification of supplier proposed material or process changes shall be provided to Grede, including;
 - 1.3.1. Changes in product design
 - 1.3.2. Changes in material
 - 1.3.3. Changes in manufacturing processes
 - 1.3.4. Changes in manufacturing location
 - 1.3.5. Changes in sub-supplier sourcing of goods and services provided to Grede.

2. Purpose

- 2.1. To communicate Grede specific requirements and expectations to the supply base. The Supplier Quality Manual is not provided as a full and definitive statement of all of Grede policies, requirements, or expectations. The Grede Purchase Order Terms and Conditions, specific contractual provisions, the language on the Purchase Order, and the Grede Supplier Quality Manual all apply in defining the expectation for a supplier's relationship with Grede.
- 2.2. To inform suppliers of requirements for notification and approval of proposed supplier changes.

3. Scope

- 3.1. Grede categorizes suppliers into three groups; **Key**, **Non-Key** or **Inspection**. Exhibit 1 defines the requirements for each group. (Any changes to group assignment must be approved by Grede plant purchasing and quality.)

4. Supplier Groups

- 4.1. Key suppliers provide value added services or components or provide products that directly affect product quality. They are required to have approval prior to initial production shipment or shipment of any material featuring a change. Value added services include casting, machining, heat treating, assembly, plating, painting, coating, finishing, grinding, shot blast, trim, and items that are cast into, or assembled onto, the finished product.
- 4.2. Non-Key suppliers provide materials or services used in, or in support of, the manufacturing process.
- 4.3. Inspection suppliers are external sorting companies, external labs and calibration firms.

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5. Purchase Orders

- 5.1. Additional requirements over and above this manual will be defined in the purchase order.
- 5.2. Any deviation from the requirements in this manual will be documented in the purchase order.

6. Quality System Requirements

- 6.1. Third party registration to the latest version of ISO 9001 or TS16949 is required for suppliers in the Key category. A copy of the supplier quality system certification shall be provided to Grede Holdings LLC purchasing.
 - 6.1.1. Grede reserves the right to verify conformance at any time through an on-site assessment.
 - 6.1.2. Waivers to the ISO/TS registration requirement require written approval of the plant quality manager and purchasing manager. Grede customer approval may also be required.
 - 6.1.3. Key Suppliers registered to ISO9001 shall be working towards compliance with TS16949.
 - 6.1.4. Grede purchasing shall be notified in writing of any change in the supplier's quality system certification status.
- 6.2. The minimum requirement for Non-Key Suppliers is completion of a self survey approved by Grede quality and purchasing management.
- 6.3. Providers of calibration and PPAP test services shall be accredited to ISO/IEC17025.

7. Changes and Deviations

- 7.1. Change notification guidelines are defined in the current AIAG Production Part Approval Process (PPAP) manual under "Customer Notification and Submission Requirements."
 - 7.1.1 Note: Changes in material source or manufacturing location require notification per the PPAP manual. A supplier, for example, may not change material sources without Grede approval
- 7.2. All process and product changes must be submitted in writing to Grede Plant Purchasing for approval.
- 7.3. Grede quality and purchasing departments shall communicate change control requirements in writing to the supplier.
- 7.4. The supplier shall not ship product featuring the change until written approval is received from Grede purchasing.
- 7.5. Supplier request for deviation must be formally submitted to purchasing in writing.
 - 7.5.1. The supplier is not permitted to ship out of specification material unless approved written deviation is obtained.
- 7.6. E-mail is the primary tool for communicating requests and approvals.

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8. Nonconforming Material

- 8.1. The Supplier is responsible for all sorting, inspection, and other related costs incurred by Grede due to shipment of non-conforming material.
- 8.2. A Supplier request for deviation must be formally submitted to purchasing in writing.
- 8.3. The supplier is not permitted to ship nonconforming material until approved written deviation is obtained.
- 8.4. E-mail is the primary tool for requests and approvals.

9. Production Part Approval Process (PPAP)

- 9.1. PPAP will be required when specified in Purchase Order.
- 9.2. Level three PPAP per the AIAG manual is required unless otherwise specified in the purchase order.

10. Evaluation of Suppliers

- 10.1. Supplier performance shall be monitored using the following indicators:
 - 10.1.1. Delivered product quality (Common Metric – Incoming Inspections Rejects)
 - 10.1.2. Customer disruptions including field returns (Common Metric – Supplier Related Customer Corrective Actions)
 - 10.1.3. Delivery performance (Common Metric – On Time Delivery)
 - 10.1.4. Special status customer notifications related to quality issues
(Common Metric – Supplier Related Containment Issues)

11. Right of Entry and Verification

- 11.1. Grede reserves the right of entry to supplier facilities to verify conformance with the purchase order and specification requirements covering all parts, processes, and quality systems.
- 11.2. Verification activities performed by Grede at the Supplier's facility shall not absolve the Supplier of the responsibility of providing acceptable product or preclude subsequent rejection.
- 11.3. Grede customers may accompany Grede personnel when appropriate.

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Exhibit 1 - Grede Supplier Groups

Group name	Key	Non-Key	Inspection
Group description	Suppliers of value added services or components or materials that directly affect product quality.	Suppliers of materials & services used in, or in support of, the manufacturing process.	Inspection Suppliers.
Examples	<ul style="list-style-type: none"> -Machining -Heat treat -Assembly -Plating -Painting -Coating -Finishing -Shot blast -Trim -Grinding -Components cast into, or assembled onto, the finished product -Alloys -Castings 	<ul style="list-style-type: none"> -Scrap -Sand & Additives -Molten metal filters -Fixtures/gages -Patterns -Molds -Ladles -Mold coating and sprays -Thermocouples -Shipping boxes -Cutting tools -Critical gasses -Laboratory supplies -Analytical reference standards 	<ul style="list-style-type: none"> -External sorting companies -External labs -Calibration firms
PPAP required	Yes**	No	No
Notification of Proposed Changes Required(See Section 7)	Yes	Yes	Yes
ISO 9001 or TS16949 3rd party registration Required	Yes	No	No*

* Providers of calibration services and PPAP test services shall be accredited to ISO/IEC17025.

** Supplier PPAP requirements for initial production and proposed changes will be determined by Grede QA and specified in the P.O.

REVISION STATUS

Rev #	Rev date	Change	Approved By:
0	04/01/2008	Original Release	R.S. Burgess, Corporate QA Manager
1	11/01/2010	Updated to Grede Holdings LLC	M. Reichenbacher, Director of Supply Chain