Supplier Quality Manual

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1.0 Purpose

The purpose of this manual is to communicate Schaefer's quality requirements and expectations to suppliers. It is the intent of Schaefer to do business with suppliers who are able to provide parts/materials/processes and services consistently to specifications, at a competitive price, and in accordance with the defined delivery schedule. The manual is intended to assist suppliers in their understanding of requirements regarding specific management, communication, and reporting processes.

2.0 Scope

The contents of this manual apply to all Schaefer suppliers of production material and external services.

3.0 Quality System Requirements

Schaefer encourages suppliers to develop fundamental quality systems that provide for continuous improvement and emphasize defect prevention while reducing variation and waste.

3.1 ISO 9001:2008

At this time Schaefer does not require suppliers to obtain certification to ISO 9001; however, suppliers are strongly encouraged to use the general process approach as the basis for their quality system development.

3.2 Calibration

All suppliers are to ensure that any equipment used to measure product quality or process performance is to be calibrated on a regular, documented schedule with results traceable to NIST. Records are to be maintained and available upon request.

3.3 Traceability

Product traceability back to product performance and process control records is to be maintained for a minimum of one year unless otherwise specified.

4.0 Supplier Assessments

With prior notification, Schaefer may choose to conduct Quality System audits at the supplier's facility. The goal of the audit is to understand supplier's capabilities and quality system and identify continuous improvement opportunities.

Suppliers will be sent a pre-assessment survey before the audit date. This pre-assessment should be returned prior to Schaefer conducting the audit. Following the audit Schaefer will forward the findings and any needed corrective actions on part of the supplier. Results of the audit will be used in the sourcing decision of potential suppliers.

5.0 Advanced Product Quality Planning (APQP)

When a supplier is selected to supply product, Schaefer may begin formal APQP Activities, if deemed appropriate. APQP is designed to communicate product quality expectations and verify that suppliers have adequate processes in place to assure smooth start-ups.

6.0 PPAP Submission Process

Some suppliers may be required to obtain approval for mass production parts prior to shipment through the PPAP Approval process. The purpose of the PPAP Approval process is to verify that a supplier's production process is capable of producing parts to meet Schaefer specifications.

When requested, suppliers shall conduct a PPAP production run and produce parts utilizing normal production equipment, tooling, or processes that would be used as in general production. The Supplier will then submit sample parts from this PPAP run for approval by Schaefer.

All suppliers are to submit PPAP samples for new parts or changes to existing parts, processes, drawings, manufacturing locations, sub-contractors, or materials.

Suppliers may be able to submit one PPAP submission for a family of parts. Schaefer will notify the supplier when this type of submission is acceptable.

PPAP is not to be submitted to Schaefer if any dimensions or test results do not meet drawing requirements. Supplier shall implement corrective action for any out of spec condition and are to contact Schaefer if they are unable to meet requirements. Schaefer will then inform suppliers on a required course of action.

7.0 Temporary Deviation

If a supplier manufactures product that does not conform to Schaefer specifications and lead-time does not allow timely corrective action due to Schaefer's production requirements, a temporary deviation request must be submitted to Schaefer and approved prior to shipping non-conforming material.

Schaefer's approval will be based on how deviations might impact the form, fit and function of the parts.

Deviation requests must include details of the non-conformance and the number of parts affected. Subsequent shipments are to include a copy of the deviation for as long as the deviation is in effect.

8.0 Problem Resolution

8.1 Returned Authorization

Returned Material Authorization (RMA) will be requested for material that is defective or considered suspect and needs to be returned to the supplier. Schaefer reserves the right to sort suspect material to avoid shutdown of its production if the supplier is unable to do such in a timely manner.

8.2 Corrective Action Process:

Upon receipt of nonconforming material, Schaefer may issue a Corrective Action Request (CAR) to the supplier. Nonconforming material may be found during incoming inspection, production audit, assembly or as warranty returns.

Within 48 hours of notification of defective parts through CAR report, suppliers must:

- Implement containment action
- Inform Schaefer of their plan to replace suspect material
- Identify short term corrective actions
- Send initial CAR responses

Within 10 business days of notification of defects suppliers must:

- Define and verify Root Causes of defect and system failure
- Determine and Implement permanent corrective actions for root cause and escape
- Verify and validate permanent corrective actions

Schaefer will analyze the final CAR response and provide the supplier with a decision on closure of the CAR. CAR responses will be Accepted, Conditionally Accepted or Rejected. Resubmission of an unacceptable CAR response is required within 5 days with discrepancies corrected.

8.3 Containment

Suppliers are responsible for developing a process to protect Schaefer from receiving material that does not meet the quality requirements and specifications set by Schaefer.

8.4 Supplier Development

Schaefer will offer assistance to suppliers having trouble meeting performance levels and specifications set by Schaefer. Schaefer will assist in:

- Resolution of critical issues
- Assist suppliers with improvement activities
- Work with potential suppliers to improve capabilities
- Conduct specific training when a need has been identified.

8.5 Cost Recovery

Suppliers will be responsible for all costs associated with Schaefer or Schaefer's customers receiving defective material. Costs may include, but are not limited to:

- Administrative
- Sorting of suspect material
- Rework
- Customer Charges
- Premium Freight
- Production Downtime
- Third party containment
- Scrap
- First Article rejection
- Overtime
- Laboratory Testing
- Travel

Costs may be debited from the suppliers account. Upon notification of the intent to debit, suppliers will have 10 days to appeal the charges. If there is no response from the supplier, Schaefer will consider this lack of response as acceptance of the charges.

9.0 Delivery Requirements

Suppliers are required to achieve 100% on time delivery. If a supplier is be unable to deliver product by the required due date, it is the supplier's responsibility to notify Schaefer as soon as possible.

Notification to Schaefer must occur anytime suspect material has been shipped. Suppliers are to notify the Schaefer Purchasing or Supplier Quality department.

10.0 Material Certification

Certain materials and processes require that test methods be adopted to verify compliance to requirements. The records of certification may have special retention requirements which will be documented in the Purchase Order, as well as whether or not they are to be retained at the supplier's location or sent with each shipment. When not specified, certification records must be kept for a minimum of three years and made available for review by Schaefer Tool & Mfg. representatives. Copies of such records must be furnished upon request.