



**CHALMERS SUSPENSIONS INTERNATIONAL INC.**

# **SUPPLIER QUALITY MANUAL**

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CHALMERS SUSPENSIONS INTERNATIONAL INC.  
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# CHALMERS SUSPENSIONS INTERNATIONAL INC.

## Supplier Quality Manual

### **1.0 Purpose**

The purpose of this manual is to communicate Chalmers Suspensions quality requirements and expectations to suppliers. It is the intent of Chalmers Suspensions 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. This manual is intended to assist suppliers in achieving the aforementioned purpose.

### **2.0 Scope**

The contents of this manual apply to all Chalmers Suspensions suppliers of Suspension parts, materials and services. Supplier shall strictly abide by all the Statutory & Regulatory requirements where the goods are shipped in addition to the requirements mentioned in this Supplier Quality Manual.

### **3.0 Quality System Requirements**

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

The Supplier's manufacturing system shall be compliant with the applicable requirements of the ISO 9001:2015 Standard with the goal of conformity to the IATF 16949.

A copy of the Supplier's certificate of registration to Quality System standards must be provided to Chalmers Suspensions. Subsequent updates to registration certificates must also be provided to Chalmers Suspensions.

Changes to the Supplier's Quality System registration status must be communicated immediately to Chalmers Suspensions.

### **3.1 Record Retention**

Production part approvals, tooling records, purchase orders, amendments and quality performance records (e.g. control plans, inspection and test results) shall be maintained for the length of time that the part (or family of parts) is active for production and service requirements plus one calendar year unless otherwise specified by Chalmers Suspensions.

Records of internal quality system audits and management review shall be retained for three years.

Retention periods longer than those specified above may be specified by an organization in their procedures. The organization shall eventually dispose of those records.

These requirements do not supersede any regulatory requirements. All specified retention periods shall be considered "minimums".



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## **4.0 Approved Supplier List**

Production parts/materials/processes and services will only be purchased from suppliers on the Chalmers Suspensions “Approved Supplier” list. Chalmers Suspensions evaluates and selects suppliers based on their ability to supply product/services in accordance with specified requirements. Failure to meet specified quality system and or performance requirements may result in removal from the bid list.

## **5.0 Supplier Assessments**

Potential suppliers will be assessed and approved as part of Chalmers Suspensions purchasing process. With prior notification Chalmers Suspensions may conduct Quality System audits at supplier’s facilities. The goal of the audit is to understand suppliers’ capabilities and quality systems and identify continuous improvement opportunities.

Suppliers will be sent a Supplier’s Qualification & Approval Form before the audit date which should be returned prior to Chalmers Suspensions conducting the audit. Following the audit Chalmers Suspensions will forward our 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.

Current suppliers would be audited as per Chalmers Suspensions “Second Party Audit Schedule” and Supplier’s Audit Form.

## **6.0 Production Part Approval Process**

Suppliers are required to submit PPAP level 3 as specified with the purchase order. If a third party lab is used for testing related to any aspect of the PPAP submission, the lab must be accredited to ISO / IEC 17025 or national equivalent.

All approved PPAP’s are required to be validated by the supplier every year as part of IATF 16949 requirements.

Supplier shall exercise care with property belonging to Chalmers Suspensions while it is under Supplier’s control or being used by the Supplier. Supplier shall identify, verify, protect and safeguard Chalmers Suspensions property provided for use. In case of loss. Damage or otherwise found to be unsuitable for use, the supplier shall report this to Chalmers Suspensions and retain documented information on what has occurred.

## **6.1 Tooling**

All Chalmers Tooling with Suppliers are required to be appropriately labelled & identified as per Identification number from Chalmers. Suppliers are required to maintain tooling records (refurbishment, new tooling, repairs, etc.) during the business relationship, Please refer to Bailee Form F.073. Each tooling with the Suppliers has to be annually validated.



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## **7.0 Process Control**

The supplier must establish and maintain manufacturing documentation adapted to their manufacturing process. The supplier must document the inspection and test results, which show that all the given dimensions on drawing are maintained on the supplied product.

Supplier is encouraged to use following controls:

- Defect Analysis
- Sampling and Process Analysis
- PFMEA and
- Control Plan
- Work Instructions

## **8.0 Temporary Deviation**

If a supplier manufactures product that does not conform to Chalmers Suspensions specifications and does not allow permanent corrective action due to Chalmers Suspensions production requirements a temporary deviation request must be submitted to Chalmers Suspensions and approved prior to shipping material.

If a supplier manufactures product on a process other than the approved process a temporary deviation request must be submitted to Chalmers Suspensions and approved prior to shipping material.

Chalmers Suspensions approval will be based on how deviations might impact the form, fit and function of the parts.

E-mail is the primary tool for requests and approvals.

## **9.0 Process Change**

A new PPAP must be submitted and approved by Chalmers Suspensions prior to any of the following changes being implemented:

- Change in the manufacturing process and or tooling
- Additional tooling or added cavities to tooling currently approved for mass production
- Manufacturing location changes
- Sub-supplier changes

## **NONE OF THE ABOVE CHANGES CAN OCCUR PRIOR TO APPROVAL**

## **10.0 Problem Resolution**

Upon receipt of nonconforming material Chalmers Suspensions would need a Problem & Action Report (PAR) to be filled up by the Supplier in its entirety. Nonconforming material can be found during incoming inspection, audit, assembly or warranty returns.

Non-conforming material should be replaced or reworked as per the time line framed by Chalmers



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Suspensions. Chalmers Suspensions reserves the right to sort suspect material to avoid shutdown of its production lines. After the corrective action is requested, suppliers must:

- Implement containment actions to protect Chalmers Suspensions from receiving more nonconforming product
- Inform Chalmers Suspensions the plan to replace suspect material
- Identify short term corrective actions
- Send initial PAR responses
- Define and verify Root Causes OCCURANCE of the defect and failures of detection
- Determine and Implement permanent corrective actions for Root Cause and Escape
- Verify and Validate permanent corrective actions

Chalmers Suspensions will analyze the final PAR response and provide the supplier with a decision on closure of the PAR. PAR responses will be Accepted, Conditionally Accepted or Rejected. Chalmers Suspensions prefers the 5Why problem solving process for documenting the PAR. Approval and closure of PAR's will be at the discretion of Chalmers Suspensions QC.

### **10.1 Supplier Development**

Chalmers Suspensions will provide assistance to suppliers having trouble meeting performance levels and specifications set by Chalmers Suspensions. Chalmers Suspensions will assist in:

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

### **10.2 Cost Recovery**

Suppliers will be responsible for all costs associated with Chalmers Suspensions or Chalmers Suspensions 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



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All costs will be debited from the suppliers account. Upon notification of the intent to debit, suppliers will have 60 days to appeal the charges. If there is no response from the supplier, Chalmers Suspensions will consider this lack of response as acceptance of the charges.

## **11.0 Delivery Requirements**

Suppliers are required to achieve 100% on time delivery. If a supplier will be unable to deliver product by the required due date it is the responsibility of the supplier to notify Chalmers Suspensions. Expedite shipment may be required if Chalmers Suspensions delivery performance is jeopardized. It is to be noted that Chalmers maintains Supplier's Delivery Score Cards.

## **12.0 Quality Requirements**

Suppliers are to achieve the required quality level of the shipped product as per Purchase Orders. It is to be noted that Chalmers maintains Supplier's Quality Score Cards.

## **13.0 Packaging**

Each supplier must adequately plan for packaging. Chalmers Suspensions encourages supplier-initiated packaging improvements. Suppliers will provide packaging that provides protection from any damage that may occur. Packaging, labeling, and shipping materials must comply with the requirements of common carriers, in a manner to secure the lowest transportation costs.

Expendable materials and packaging must be legal and safe.

Whenever possible, only one part number and one supplier lot is to be packaged in a shipping container. When more than one part number or lot number is packaged in a shipping container, each part number and/or lot number must be separately packaged (i.e. bags or boxes) inside the container, with each labeled as to the contents.

Wooden Pallets / Skids: Supplier to follow ISPM-15 for international shipments. It can be met through approved heat treatment and fumigation treatment.

## **14.0 Labeling**

Each shipping container or inside package must contain the following information:

- Part Number
- Quantity
- PO Number
- Ship Date
- Supplier's Name & Address
- Chalmers Name & Address



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**15.0 Continuous Quality Improvement (CQI):** Chalmers expect Suppliers to implement CQI as and where applicable. Following standards should be referred.

1. **Castings CQI-27:** The goal is to develop a robust casting processes to eliminate root causes of major casting defects. Also refer, Chalmers Form F.013 (b) for approved Material Specifications for Castings.
2. **Sub-Tier Supplier Management Process CQI-19:** For an effective Supplier evaluation, selection and development, alternate tools & methods are acceptable if the Chalmers intent is met.
3. **Steel:** Suppliers should always look for better cutting, bending, grinding, chamfering and other fabrication processes as per the ongoing innovations in market. Refer to F.013(a) Approved Material Specifications for Steel

## 16.0 Approved Forms

- F.057 Supplier Assessment & Approval Form
- F.021 Supplier Audit Form
- F.013(a) Approved Material Specifications for Steel
- F.013(b) Approved Material Specifications for Castings.
- F.074 Request for Deviation/Waiver

## 17.0 Revision Record

Revision #	Description	Date	Approved By
0	Released as per IATF 16949	Apr. 26, 2018	Nitin Purohit