

## **Quality Guideline for Suppliers**

### **1. Purpose of the Quality Guideline (QG – German: Qualitätsrichtlinie: QRL)**

The Quality Guideline (QRL) of CLAAS Fertigungstechnik forms part of the Purchase Orders and thus is binding for all suppliers, hereinafter referred to as Business Partners. The QRL is applicable to prototypes and serial production lines.

The Business Partner undertakes to impose on his suppliers suitable quality guidelines in order to meet the requirement of this QRL. He maintains a quality and / or Environmental Management System which, according to the current state-of-the-art on the basis of the certificates applicable to CLAAS Fertigungstechnik, is in compliance with:

- VDA 6 part 4
- DIN EN ISO 9001
- DIN EN ISO 14001 (environmental management)
- DIN EN 9100 (projects for the aerospace industries)

The Business Partner concedes to CLAAS Fertigungstechnik and his customers and to the regulating administrative offices the right to persuade themselves of the efficiency of the Business Partner's Quality Assurance System and to take part in the tests and inspections of the objects of performance. A long-term availability of component parts has to be ensured on the part of CLAAS Fertigungstechnik (e.g. spare parts) in favour of CLAAS Fertigungstechnik. Any proclamations have to be communicated to CLAAS Fertigungstechnik in time.

### **2. Terminology / Abbreviations**

QM Quality Management

QRL Qualitätsrichtlinie – QG – Quality Guideline

FAI First Article Inspection

FMEA Fehler-Möglichkeit und Einfluss-Analyse – APEI - Analysis of Potential Errors and Impacts

### **3. Responsibilities**

The Business Partner (supplier within the meaning of the standard): Implementation of the requirements of this QRL:

CLAAS Fertigungstechnik – Purchasing Dept.: Committed contractual partner of the Business Partner  
CLAAS Fertigungstechnik - QM: Assessment of the Business Partner's quality capabilities and verification of the practice-oriented implementation of specific order-related quality requirements.

### **4. Description**

#### **4.1 Order Records**

The Business Partner undertakes to supply the items, i.e. subject matters of the Contract in accordance with the Technical Specifications handed over and / or the manufacturing documents mentioned as a binding requirement in the purchase order. For this purpose, the Business Partner will check the order documents in order to make sure that the specifications / drawing / manufacturing documents can be used and implemented in his company.

Binding agreements / clarifications shall be made via the competent purchasing department of CLAAS Fertigungstechnik.

#### **4.2 Standard Parts and Catalogue Parts**

The technical information included in the standards and catalogues constitutes the basis of any purchase order and thus is binding. The Business Partner shall inform CLAAS Fertigungstechnik in advance in the event of any changes.

#### **4.3 Quality Planning**

##### **4.3.1 Development Planning**

The Business Partner shall establish a development plan including defined milestones. The development plan has to be made available to CLAAS Fertigungstechnik voluntarily and on a timely basis.

#### **4.3.2 Order Planning**

The Business Partner has to make sure that all deliveries and services provided by him are in compliance with the requirements according to the specific purchase order. For this purpose, he will

subject his deliveries and services to a works control (control of receipt of goods, processes and final inspection) and eliminate any compliance deficiencies observed.

For special design parts, CLAAS Fertigungstechnik reserves the right to request a Quality Management Plan, if the Quality Management Department of CLAAS Fertigungstechnik considers this to be necessary.

#### **4.3.3 Work Planning**

The Business Partner shall carry out a suitable work planning scheme, to be able to prove the required working sequences and treatment processes. Test, measurement and heat treatment records for instance shall be considered as proofs. If necessary, the Business Partner of CLAAS Fertigungstechnik shall provide these documents to CLAAS Fertigungstechnik.

#### **4.3.4 Test Planning**

The Business Partner shall conduct an appropriate inspection planning (as to the technical details and the time schedule). Any inspections carried out have to be documented at a suitable point by the person in charge of the inspections while indicating the corresponding date. CLAAS Fertigungstechnik has to be informed about the inspection dates on request, so as to enable CLAAS Fertigungstechnik to participate.

#### **4.3.5 Measuring Instruments**

The Business Partner will use suitable inspection and measuring instruments and check compliance with allowable tolerances of the inspection and measuring instruments for performance proofs systematically (calibration).

#### **4.3.6 Requirements on the Product and Process Quality**

The Business Partner is committed to observe the applicable technical rules (e.g. DIN, VDI, VDE, DVS etc.) in all procedures such as the use of special technologies, special processes and special manufacturing procedures. Proof of the product quality has to be furnished at regular intervals. The nature and scope of the proof furnishing are defined in the purchase order.

If the Business Partner determines that any claims outlined in the purchase order are contradictory to the applicable technical rules of the industrial sector, a clarification has to be sought with the purchasing department of CLAAS Fertigungstechnik before rendering the service or performance.

#### **4.3.7 Deviating and Corrective Measures**

Any repair work to be carried out shall be subject to CLAAS Fertigungstechnik's previous explicit approval and has to be marked by clear signs on the product (adhesive labels, tags and the like).

Any deviations from the set of drawings call for a previous approval in writing, for instance by a bug report established by the Business Partner and undersigned by CLAAS Fertigungstechnik. The approval has to be included in the delivery of the Product. The reason for the deviation and the corrective measures initiated has to be outlined in the bug report established by the Business Partner of CLAAS Fertigungstechnik.

#### **4.3.8 Treatment of Defective Products**

The Business Partner shall take suitable measures to exclude any supply of discarded or uncorrected and rejected services to CLAAS Fertigungstechnik – whether these are direct or indirect. The Business Partner shall also be obliged to give notification of any defective goods already delivered to CLAAS Fertigungstechnik.

#### **4.3.9 Delivery Condition Radiation Protection**

The supplier is committed to comply at any time with the regulations of the Radiation Protection Act (of the Federal Republic of Germany) when making deliveries to the customer within the Federal Republic of Germany and to observe any related official decrees.

In the event of any productions being realized outside Germany and deliveries made to a customer outside Germany, the supplier shall be committed to observe the applicable international and national regulations on radiation protection and to comply with the applicable official decrees.

#### **4.4 Storage Time and Guidance of the Documentation**

The Business Partner shall define a method to guide product-specific and order-related documentations, in order to ensure the identifiability and detectability of said documentation. The documentation shall for instance also include testing, measuring and heat-treatment records or material certificates. If need be, the documentation has to be available for the period of 10 years from delivery of the last part.

#### **4.5 Packaging and Storage**

The packaging has to be such that any risk of damage to the Product during delivery is excluded. If necessary, the Product has to be protected against any damage from environmental impact. If any storage time limits have to be observed, a pertinent special note has to be given about this and the manufacturing date of the Product has to be mentioned (in Elastomer parts, these are for instance the vulcanization date and the expiry date of the durability of those parts).

#### **4.6 First Article Inspection (FAI)**

The First Article Inspection is meant to furnish proof of the fact that a safe repetitive serial manufacturing will be possible. Therefore, the first sample is meant to be used as a proof for all technical design and specification requirements to be understood, assigned, verified and documented correctly.

The Business Partner shall take all necessary measures during the follow-up of orders in order to furnish proof of the safe repetitive serial manufacturing.

A First Article Inspection has to be carried out if so requested in the purchase order form. In case of any changes concerning the design, suitability and function and in case of an interruption of the lead time of > 2 years or a displacement of the production site, the First Article Inspection has to be repeated. If required, the FAI planning has to be agreed upon with CLAAS Fertigungstechnik. CLAAS Fertigungstechnik then have to be notified two weeks before the start of the First Article Inspection, in order to allow them to participate.

The minimum requirements on the FAI are:

- Inspection of the product against the drawings and documents (e.g. all features, material certificates, identification of critical component parts)
- Verification of special processes (e.g. welding, soldering, gluing, heat treatment, surface treatment, environmental conditions, staff training etc.) e.g. by destructive / non-destructive testing
- Validation of equipment and devices / gauges and product-specific tools (e.g. special keys, contour cutters, adaptors etc.)
- Validation of test and application software for the production process (CNC and measurement programmes). In this respect, the guideline "Quality Management 'First Article Inspection' EN 9102:2001 (draft) is mentioned as an applicable guideline to aerospace products.

The detailed documentation of the First Article Inspection remains with the Business Partner. A FAI record that - apart from the designation of the component part (name, CLAAS manufacturing number and serial number) - certifies that the above-referenced items have been checked successfully and accomplished without any objections within the framework of the FAI, has to be attached to the goods on the occasion of the first deliveries.

#### **4.7 Retraceability**

If retraceability is required in the purchase order, the following provision shall apply: The Product creation process, the use and / or the whereabouts of a Product have to be retraceable using suitable records and, if need be, parts' identification means.

#### **4.8 Risk Management**

To control remedial measures for any risks and secure potential sources of errors, the business partner shall implement suitable methods according to the state-of-the-art (e.g. FMEA, fault tree analysis etc.).

#### **4.9 Requirements on the Operating Plant Using Specific Manufacturing Procedures**

Any technical equipment and documentations required for the manufacturing procedures must be available. The technical equipment has to be maintained and adjusted by qualified personnel.

#### **4.10 Requirements on the Staff in Special Manufacturing Procedures**

The individuals employed must be able to present recognized vocational education schemes (e.g. in welding according to EN 287-1/-2 or a suitable DVS-education) or internal trainings, so that manufacturing, inspection planning and inspection according to the state-of-the-art standards is ensured. If need be, a qualification pattern of the staff members participating in the execution of the order has to be submitted. The same shall apply in any subcontracting procedures according to 4.12 of this Quality Guideline.

#### **4.11 Special Quality Requirements on Customers of CLAAS Fertigungstechnik**

In the event our customers should have imposed any specific quality standards which are important for the service or performance of the Business Partner, these standards will be taken into account accordingly in the assessment of the Business Partner's quality capabilities.

#### **4.12 Relocation / Subcontracting of Work**

If the Business Partner intends to relocate the order partly or completely or to have it executed by a subcontractor, this shall be subject to CLAAS' Fertigungstechnik's previous approval. For this purpose, the Business Partner has to inform CLAAS Fertigungstechnik – the purchasing department – in advance. Accordingly, this shall be applicable to any changes made during the processing of the order.

#### **4.13 Requirements on Labour and Environmental Policy**

The Business Partner undertakes to process our purchase orders with respect to any hazards and the preservation of natural resources adequately on the basis of his Labour and Environmental Policies, in order to keep any related risks as low as possible.

### **5. References and Remarks**

If the Business Partner is unable to meet one or several of these requirements, he shall be committed to inform CLAAS Fertigungstechnik – the Purchasing Department – of this in writing, in order to seek the implementation of suitable exclusions.

### **6. Documentation**

See item 4.4 "Retention Time and Guidance of the Documentation"

### **7. List of People to Receive a Copy:**

Externally:

This Quality Guideline is accessible to the Business Partners as it is published on CLAAS' Fertigungstechnik's homepage.

Internally:

Due to the incorporation of this Guideline into the document management procedure, it may also be called off internally.