MILREM AS

SUPPLIER QUALITY REQUIREMENTS

Milrem AS, Betooni 1, Tallinn 13619, Estonia, Reg. No. 12494266, info@milrem.com, www.milrem.com

CONTENTS

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1. INTRODUCTION

Quality is a key aspect in Milrem AS mission which is to provide innovative robotic solutions for challenging environments. In order to achieve this, it is vital that the parts and components used in Milrem AS products meet the highest quality standards in the market. This document describes the general quality requirements for Milrem AS suppliers. The document was prepared by Milrem AS quality management department in conjunction with the purchasing department.

2. PURPOSE

The quality of the purchased and ordered parts which are produced by suppliers have a direct impact on the final products which are sold by Milrem AS to its clients.
Milrem AS expects its suppliers to take all necessary means to provide defect-free products. The means used to achieve this should be reasonable both in commercially and in terms of scheduling.
The suppliers are encouraged to provide feedback to Milrem AS about optimization potentials and suggestions for improvements in terms of manufacturing products ordered by Milrem AS.

3. SCOPE OF APPLICATION

The conditions described in this documentation shall apply to all products and services procured by Milrem AS and its subsidiaries (further referred to as "Milrem").

4. ABBREVATIONS

AQAP	-	Allied Quality Assurance Program
RFQ	-	Request for Quotation
PO	-	Purchase Order
CAD	-	Computer Assisted Drawings
QMS	-	Quality Management System
KPI	-	Key Performance Indicator
ERP	-	Enterprise Resource Planner

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5. QUALITY MANAGEMENT SYSTEM

The quality management system of the supplier shall be certified according to ISO 9001 standard or equivalent.

The supplier shall make its quality management system accessible to Milrem AS in an appropriate form if requested.

Milrem accepts agreements with companies without a certified quality management system if the company proves that the vital processes which are in Milrem interests are documented and implemented in the company's processes.

The results of the quality tests shall be fully documented. Milrem AS is entitled to inspect the quality records where necessary to the scope of relevancy. A copy of the records shall be handed to Milrem AS upon request. The supplier shall define the retention periods for all quality records taking into account the legal requirements. The minimum archiving period is 10 years unless otherwise indicated. All records shall be made available to Milrem AS or its legal successor in case of liquidation of the supplier.

6. QUALITY RESPONSIBILITY

The supplier and is responsible for the product quality and the fulfilment of specified requirements to the extent which is contractually specified. The responsibility lies on the supplier if sub- contracting is used to provided products or services to Milrem AS. The supplier shall be responsible for passing on Milrem AS quality requirements to its sub- contractors within the scope of relevance to assure the quality requirements are fulfilled.

The supplier is responsible to the fulfilment of all applicable legal requirements.

The supplier shall take measures to prevent any defects of the quality of the deliveries either through the transport or through environmental impacts.

Means of transportation and packaging should be selected so that they guarantee the protection of the deliveries and/ or personnel. Milrem AS reserves the right to agree the means of packaging and transportation with the supplier. Products with a damageable (e.g. painted, varnished) or valuable surfaces (e.g. galvanized, chrome plated, gold plated) should be delivered in special or individual containers.

If the transport is subject to certain restrictions e.g. air transport in the case of pressurized components or certain types of batteries then it must be clearly marked on the packaging.

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6.1. Milrem AS documents and requirements

The supplier shall check all of the necessary documents such as drawings, CAD files and specifications for completeness upon receiving the RFQ or PO. Milrem AS shall be notified as soon as any shortcomings or inconsistencies are evident. Milrem will provide any missing documents promptly after clarifying the circumstances.

Drawing files in .pdf format shall be the official documents which will be referred to in case there are differences between 3D files and the drawings themselves. In case of a dispute between the supplier and Milrem AS the drawings shall be the official source of purchase order requirements.

The supplier is obligated to obtain required documents which are publicly available and necessary for the fulfilment of the contract such as ISO or other national standards. The supplier shall always refer to the latest published version of the standards unless it is separately noted by Milrem AS. The supplier shall maintain a system which ensures that the latest version is always available.

Specific assembly instructions or datasheets for purchase parts in the BOM have to be obtained by the supplier if they are available by the manufacturers or distributors.

7. CONFIGURATION MANAGEMENT

Necessary procedures to comply with the requirements specified by Milrem AS regarding configuration management must be taken by the supplier if contractually required to do so.

If no specific requirements are stated by Milrem AS the supplier may use its own system. The procedure must meet the minimum requirements of ISO 9001 and AQAP 2110 or equivalent quality systems.

Any deviations in the point of application of technical amendments shall be reported by the supplier to the Milrem AS's supply chain immediately and, where relevant, agreed with Milrem AS.

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8. INSPECTION PROCESS AND MEASUREMENT TECHNIQUES

The supplier shall develop test specifications, inspections plans and/ or inspection instructions including data about the inspection criteria, tolerances and scopes of tests/ inspections depending on the requirements imposed on the product or process being provided by Milrem AS and based on its own analysis.

The tests/ inspections must be planned and implemented with the utmost care so that ball identifiable defects are brought to light. Acceptance criteria must be clearly set. Particular importance shall be attributed to the testing/ inspection of products that are critical and relevant to provided product or process safety.

All measuring equipment used must demonstrate valid calibration according to ISO 10012. The supplier shall be capable of ensuring the suitability of the testing equipment which is used for their inspection and/ or measurement procedures. The fulfilment of calibration requirements must be demonstrated by means of appropriate measures to Milrem AS.

9. PROTOTYPES AND PRELIMINARY SAMPLES

Prototypes or preliminary samples shall be identified by Milrem AS purchasing orders. These are components which are not yet produced under series conditions or similar. Prototypes and preliminary samples shall be a subject to a 100% inspection or testing of all relevant features. The scope of testing must be agreed with Milrem AS.

Inspection of prototypes and preliminary samples must be documented. Inspection records must be archived for at least 10 years.

Prototypes and preliminary samples must be clearly marked on packaging and in the accompanying documents.

The test/ inspection results shall be documented and provided with the products/ components upon request from Milrem AS. The use of specified material shall be explicitly be confirmed.

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10. NONCONFORMITIES

10.1. Control of nonconforming products

If the supplier identifies defective products at its premises then such products must be handled according to ISO 9001 requirements regarding defect management. Such system and appropriate processes have to be documented as a part of the suppliers QMS. Milrem AS expects that appropriate measures will be taken to ensure that the further use of unusable products is eliminated. Defective products must be prominently and permanently marked and handled in a systematic way. These measures can even involve physical destruction. Corresponding evidences of scrappage shall be presented to Milrem upon request.

10.2. Corrective and preventative actions

Each claim which is submitted by Milrem AS shall be investigated by the supplier. This is to ensure that the root cause of the nonconformity is identified and appropriate measures can be taken to ensure that the nonconformity will not occur again.

Supplier is obligated to provide Milrem AS a technical explanation within the time limit specified in the claim report. The explanation must both look at the cause of the nonconformity and the failure to recognize it. The technical explanation shall be in the form of an 8D-report.

In case the supplier rejects the claim, which was sent by Milrem AS a reasonable explanation must be provided in a written form. If the supplier fails to do so the claim is agreed as accepted and Milrem AS has a right to invoice the supplier for the costs.

The supplier must immediately inform Milrem AS if it is unable to exclude with certainty that defective parts have reached Milrem AS.

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11. TRACEABILITY AND MARKING

The products shall be clearly marked by the supplier so that they can be matched with the delivery documents. The labeling shall be positioned on the outer packaging or on the product so that they can be clearly seen while receiving the shipment (e.g. product tags or adhesive labels. The deliveries must be provided with the following information:

- Purchase order number;
- Part / assembly number;
- Part/ assembly revision index;
- Part/ assembly name;
- Delivery quantity.

Optional information provided with the shipment:

- Serial or batch number;
- Specific storage conditions if required;
- Expiry date or shelf life;
- Statutory markings.

Marking requirements also apply for the standard and catalogue parts (purchase parts) which are provided with a shipment. The minimum provided information must be the standard description and identification according to the manufacturer of purchase parts.

ISO/ IEC 15417 Code 128 barcode standard is accepted for part identification method. Labeling must not damage the commercial look of the delivered products.

Additional requirements for the delivery documents which are marked either on Milrem AS drawings or purchase orders must also be provided by the supplier. For products which require verification the delivery will not be marked as arrived and accepted until the requested documents are received by Milrem AS.

12. COMMUNICATION

Questions, inquiries, arrangements and other issues shall be forwarded to Milrem AS Quality or Purchase Department by the supplier in written form. Other means of communication is accepted for minor problems and notifications. This involves phone calls and instant messaging services.

The supplier shall use English or Estonian while communicating with Milrem AS. This includes documents and records which will be sent to Milrem.

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13. SUPPLIER RATING

Milrem AS shall rate its suppliers according to 4 key performance indicators (KPI's). This rating is communicated with the suppliers on quarterly basis. The baseline for the rating is composed according to the self-assessment which is a part of the „Supplier Registration Form" filled by every Milrem AS new supplier for series production parts. After that the baseline score will be changed according to supplier audits if the need arises.

There are 3 levels for supplier evaluation. The level is calculated according to the results of the individual KPI's which are described in Table 1.

The rating is communicated with the suppliers quarterly by Milrem AS quality or purchase department.

Table 1. Supplier rating KPI's

Level	On Time Delivery	Quality performance
1	>90%	>95%
2	>80%	>90%
3	<80%	<90%

Table 2. Supplier categories

Level	Description	Actions
1	Preferred	Delivery dates will be reviewed by Milrem AS purchase managers. Preferred suppliers will receive PO's by Milrem AS for series production parts without additional checks.
2	Approved	Project supply strategy is reviewed by Milrem purchase managers when level 2 suppliers are chosen.
3	Approval Required	Project supply strategy has to be agreed by Milrem AS management board if level 3 suppliers are chosen.

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13.1. Key Performance Indicators

13.1.1. Delivery Reliability

Milrem AS will monitor the delivery reliability of every supplier. Delivery reliability is the ratio between all procurements and the amount of procurements which are supplied in promised timeframe. This KPI is automatically adjusted by Milrem AS ERP system according to the initial or updated delivery times which are communicated with the purchasing department.

13.1.2. Delivery Performance

Delivery performance is the ratio between conforming and nonconforming products delivered by the supplier. This ratio does not depend on the delivery reliability. The ratio shall be communicated with the supplier quarterly in conjunction with the overall supplier rating. Delivery performance is adjusted and calculated by Milrem AS ERP system based on the rejected quantity per purchase order.

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13.2. Supplier audits

The right to audit the supplier's premises is granted to Milrem AS and its customers if Milrem AS has notified the supplier prior to the event. Milrem AS shall inform the supplier at least 14 days prior.

Milrem AS and its customers reserve the right to carry out audits at the supplier's facilities. The audits are held in order to satisfy the contractual requirements set by Milrem AS and its customers. The audits can be held at either system, process or product levels.

Furthermore, Milrem AS reserves the right, given appropriate cause, to audit the supplier's sub- contractors. This shall happen by arrangement with the supplier.

The supplier shall grant Milrem AS and its representatives or customers access to its and/ or its sub- contractors' facilities, as well as access to all documents to the extent these are relevant to the subject matter of the contract.

Nonconformities which are identified during the audits shall be handled within the agreed timeframe and the actions taken shall be automatically reported to Milrem AS.

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