Supplier Quality Manual

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Dear reader,

Before going through this document, we would like to take a moment to express how much we value both our longstanding suppliers and prospective new suppliers. We emphasize the crucial importance of upholding the highest standards of quality and performance in our collaborations. Just as we continually strive for growth and improvement in our products, our commitment to the robust quality of our supply chain remains steady. We're thrilled to continue on this journey alongside all our suppliers.

Lely works every day to deliver top quality products to its customers. The purchase of a Lely robot is comparable to buying a luxury car: a large investment, which has been thought about for a long time. And when the delivery time comes, every detail counts, and the customer hopes that his expectations are exceeded. Of course, ease of use, good energy performance and easy maintenance are at least as important for the customer's experience of Lely quality. This is what we are constantly committed to.

At our core, we are a family business that values long-term relationships, not only with our customers but also with our suppliers. We firmly believe in the principles of transparency, mutual growth, and accountability for achieving results. In pursuit of our quality-focused approach, we rely on measurable results and data as our guiding factors.

For us, it is crucial to ensure not only that the end product meets our specifications but also that the production process itself is robust and reliable. This helps ensures a consistent level of quality. This aspect becomes even more critical as our production processes are based on fixed, repeatable methods used in series production. By securing the production process, we can identify and eliminate any deviations, enabling us to maintain the high quality of the output. We need to be able to rely on excellent quality of both the products our suppliers provide us with, and the processes through which these products are produced. This expectation of excellent and reliable quality also extends to the sub-suppliers, with whom the supplier is requested to establish agreements that align with the requirements outlined in this document. This approach allows us to be agile in responding to the continuous innovations we implement in our end products and, consequently, in the components we require.

Thank you for your ongoing support and dedication to delivering optimal quality products and services. Together, we can continue to provide our customers with the outstanding experience they deserve.

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1. General

a. Purpose

This document is intended for every supplier that supplies products to Lely Operations and Lely Spare Parts Operations. It provides on one hand an explanation of Lely's working method, and on the other, Lely's expectations regarding the supplier's internal quality assurance. All provisions contained herein apply to the supplier. A any additional agreements may be included in the supply agreement between the supplier and Lely.

Additional requirements may apply for deliveries to Spare Parts or to Consumables. The lifespan of products supplied by the supplier and rejects from the field (warranty claims) are not covered by the scope of this document. Agreements regarding Consumables deliveries and warranty claims are exclusively set out in the supplier's agreement with Lely.
The supplier is requested to communicate this document to the following teams within its organization: production, preparation, logistics, quality, (production) engineering, purchasing and management.

b. Organization

The processes explained in this document involve the following Lely departments:

Department	Involved in
Product Development (PD)	The Product Development department design products based on requirements such as functionality, lifespan, and manufacturability. PD creates mono- and assembly- drawings of the products with specifications to achieve the required quality. Which is for QC the baseline of checking if the produced items meet this specification. They continuously improve the products which results in changes. During the design the drawings are communicated with the suppliers with status "PROTO" for discussion and check if the supplier can make it. When the design is finished the drawings will get status "RELEASED" and will officially be communicated with the supplier by purchasing.
Procurement	Select, contract, and manage suppliers. Monitoring the performance of the suppliers and adjusting accordingly if necessary. Managing the product life cycle together with suppliers and auditing the suppliers' quality management systems.
Planning	Ordering the products from suppliers, based on the needs of Lely Operations.
Manufacturing Engineering (ME)	Guide New Product Introductions (NPIs) in production Lely. Preparation and maintenance of packaging instructions, requirements, and tooling.
Quality team (Quality Assurance Quality Control -QAQC)	Providing input on quality requirements as determined by PD and guaranteeing this in Lely production (by means of sample processes, entrance checks and final inspection Lely). Setting out (process) requirements as described in this document and ensuring that suppliers meet them.

c. Definitions

Term	Definition
0-Series	A small sized first production batch. Main purpose is to validate the production process and highlight the potential quality risks by running the necessary inspections before series production begins.
8D	Eight Disciplines of problem solving
Audit	A systematic and independent investigation carried out by an auditor. The auditor supports their observations with documented evidence.
AQL	Acceptable quality level
Approved supplier	A supplier that has been deemed acceptable by Lely and can provide goods or services of the right quality.
Change	Any change in the production process or resources, process or product design or controls or supply chain, which does or may affect the quality of the final product.
CE, **UKCA,** **FDA,** **CSA**	European Compliance United Kingdom Conformity Assessed United States Food and Drug Administration Canadian Standards Association
(D/P) FMEA	Design or Process Failure Modes and Effects Analysis
FIFO	First In First Out method of inventory management.
Item	An individual unit of a product
KPI	Key Performance Indicator
Lely	Lely Industries N. V
MOC	Management of Change
NPI	New Product Introduction, the process by which the introduction of new robots is introduced at Lely Operations.
OTD	On Time Delivery
Product	Refers to materials, parts, assemblies, sub-assemblies, equipment, packaging etc that is being procured by Lely.
PD	Product Development
Prototype	A model of a product that is built to test a concept or a process during the design phase, on the basis of a prototype drawing.
QAQC	Quality Assurance Quality Control
QCD	Quality Conformity Document
QCP	Quality Control Plan
QLTC (R)	Quality, Logistics, Technology, Cost & Risk
Quality management system (QMS)	A coherent package of policies, procedures and work instructions related to the production process and supporting processes. This system must be accessible to all relevant employees and known and adhered to throughout the organization to guarantee quality performance.
Reject Rate	The percentage of rejected items relative to the total number of items delivered within a certain period.
Sample	A part or assembly representing a final product. It enables verification of the functionality for Lely and makeability by the supplier, or any other aspect in the product that need to be confirmed before large scale production begins.
Supplier	The entity that Lely has contracted for the supply of the materials or services in the purchase order or contract.
Sub-supplier	The entity that the Supplier has contracted for the supply of the materials or services in supplier's purchase order or contract.
Surface treatment	Post-processing of a product to obtain the desired surface or appearance (for example, the desired color, or evenness) or property (such as rust resistance).
Tooling	Tools that are necessary to manufacture parts or components for example: Welding jigs, molds et cetera.
Waiver	A temporary change in the specifications that a product must meet. Approved and registered by PD Lely, communicated either by procurement or QAQC.
Welding jig	Fixtures used to fixate elements in place and have a repeatable welding product.

2. Specifications Lely

a. Drawing

i. General

The specifications that the products supplied to Lely must meet are incorporated in the technical drawing. The drawing shows the dimensions, tolerances, and any additional quality requirements such as roughness or CE marking. A prototype can be requested with a drawing that has status 'proto' or 'released', but a sample must always be based on a final drawing (status 'released'). Serial delivery always takes place based on a drawing with status 'released'.

The revision of the drawing is indicated in the lower right corner. When the supplier receives an order, it is always important to check which revision is requested. The requested revision is always mentioned on the purchase order. In order to guarantee the effectivity date of new revisions, it is important that suppliers deliver FIFO.

In addition to the dimensions, tolerances and any additional requirements indicated on the drawing, the Non-Conformity Catalogue as described in section 2.b of this document always applies. Additional Quality Conformity Documents or equivalent may apply to the product. These documents are shared by Lely with supplier during the sample phase or earlier.

ii.Classification by risk category

The components of the robots are classified by risk category, which indicates to what extent a component affects the safety, performance and functioning of the robot (including its assembly phase and later its maintenance) of which it is part. Depending on this risk category determined by Lely, additional requirements are set. For example, the traceability of materials and sub-components or the creation and maintenance of (P)FMEAs. In addition, for the highest risk category, we require that the supplier has a documented QCP, a control plan regarding quality assurance.

The risk category in which a product is classified can be found on the drawing. If this is not available, please request it from QAQC Lely. A detailed overview of the requirements per risk category can be requested from the QAQC department when applicable to the product the supplier provide.

iii. Q-zones

Depending on the location and function of each product, requirements are set. The visual requirements for the appearance are strongly related to the function (how well should the material be protected against, for example, the barn environment) and the visibility of the product during use and maintenance of the machine. As this can differ per side, we work with Q-zones, which show the visual requirements per zone of the product.

The drawing indicates which Q-zones are present on the product. If the drawing does not show a Q-zone, we consider the surface to fall under Q-zone 3. Exactly which quality requirements are set depends on the material and the type of surface treatment of the product.

Surface class	Finishing quality	Zone description
Zone Q1	Superior	Visible any time in normal use
Zone Q2	Good	Regularly visible in normal use
Zone Q3	Fair/moderate	Sometimes visible
Zone Q4	Not relevant	Only visible by exception

The requirements per Q-zone depend on the material of the surface and the type of surface treatment. In the Non-Conformity Catalogue, the requirements per surface treatment and per Q-zone are indicated. In addition, there are a number of Quality Conformity Documents that provide further explanation of these and other specific quality requirements for treated surfaces.

iv. Certification

In accordance with the requirements of legislation and regulations, some parts must be produced under certification. This is especially true for load bearing and pressure-bearing parts. In addition, food safety is a criterion from which certain strict production conditions can arise. If a product must be produced under certain certification or other special conditions, this is stated on the drawing. Furthermore, it is the supplier's responsibility to make sure that the product complies to any additional relevant laws and regulations and provides the necessary certifications as a proof. If suppliers have any doubts about the interpretation of a certain standard that is stated on the drawing or in the supply agreement with Lely, they can contact QAQC.

Welding assemblies often have certification requirements. It may be required that the product is welded by a certified welder or that the operator of the welding robot is certified, or that the final inspection takes place by a certified welding inspector.

In the context of compliance of the Lely robots with the laws and regulations, several components are subject to additional specific requirements. These are, for example, compliance with CE, the European requirements for machines, among other things, or the FDA approval. These requirements relate particularly to material certificates and guarantees of the non-occurrence of certain substances in a product. If it has been contractually agreed with the supplier that their product must meet CE or UKCA/ USA compliance/CSA requirements or another standard, they must be able to always demonstrate this. Material certificates of raw materials or subparts used by suppliers must be kept for at least three years or be able to request them from the sub-supplier.

b. Non-Conformity Catalogue

The purpose of this standard is to describe surface appearance requirements for components. These requirements, with regards to appearance attributes and surface defects, are outlined according to the Q-zones. The purpose of these appearance requirements is to ensure that the finish of components will meet customer expectations.

c. Management of Change

The Supplier shall maintain a documented Management of Change (MOC) process to ensure all works are performed in accordance with the intended latest design requirements and the OTD target is also met. The supplier must inform Lely of any change prior its implementation and provide Lely with a methodology for verification following any modifications (such as changes in key personnel, processes: new tools/ new process/ new technology, unforeseen changes, sub-suppliers, material, plant change, etc.). The procedure shall clearly differentiate the roles and responsibilities for changes that originate from Lely and Supplier. Where requested the Supplier shall provide a copy of the MOC procedure to Lely for review and acceptance.

d. Quality Conformity Document

In addition to the requirements described in the Non-Conformity Catalogue, various surface treatments come with additional process- and end result requirements. Therefore, Lely developed several Quality Conformity Documents, describing the international standards to follow; quality testing levels; inspection and packaging requirements et cetera, to assure that the product adheres to the required quality standards.

e. Waiver

In case adherence to the standards set out in the specification is not possible in a specific case by a supplier, a waiver can be issued by Lely to authorize the deviation from specified quality standards or requirements. When requesting for acceptance of this deviation, the supplier must submit a deviation request to Lely, the deviation requests must be written addressed to Lely QAQC and contain the following information:

- Supplier identification
- Contact person.
- Component and material identification, including reference to the applicable engineering drawings.
- Complete description of deviation (non-conformity) with supplier's opinion on potential effects on fit, form and functionality
- Quantity or time frame to which the deviation request is applicable.

The QAQC or procurement team at Lely will give a written answer to the supplier who is not allowed to supply any components or material under deviation without prior approval of one of these teams. All deliveries under a special acceptance must be identified with a copy of the approved waiver and all packaging must be identified with "Shipment under concession.", unless agreed otherwise.

This waiver is only used in exceptional circumstances and is granted only after a thorough review of the situation and a risk assessment of the deviation by all stakeholders. It is important to note that waivers are granted on a case-by-case basis and should not be used as a substitute for compliance with quality standards.
Lely is free to set a reduced price, up to 50% of the regular purchase price. The supplier is not obliged to accept this price in condition that it provides items with full alignment of the quality requirements within the required timeframe.

f. Packaging

Each shipment to Lely must be addressed according to the instructions in the purchase order and packed in accordance with the packaging requirements. The shipment must be provided with measurement reports when required.
The items supplied to Lely Industries N.V. must be clean, dry, dust-free, free of contamination and free of other foreign materials. The supplied parts must be correctly packed without damage. General instruction is not material on material without protection in between, except agreed otherwise with Lely Industries N.V. If there is an additional packaging instruction for a product, it will be sent along with the purchase order.

Lely uses grey bins with the Lely logo on them, various models are used: LTB 4120, LTB 6120, LTB 6220, LTB 6320.

When the items are packaged, the following must be considered:
- Take the environment into account and use the minimum required amount of packaging material, and preferably free of plastic.
- Electronics must be packaged according to Electro-Static Discharge (ESD) guidelines.
- The shipment may be refused if the packaging is not clean and free of foreign material or has been damaged.
- The orders ordered are based on the number defined in the packaging instruction. If an order is placed for a number that deviates from the instruction, the supplier uses the packaging instruction even if the rack, container, box is not full.

3. Release process

a. Samples and prototypes

i. Purpose

Prototypes and samples are requested from research or testing and validation perspective. A prototype can be requested with a drawing that has status ‘proto’ or ‘released’, but a sample, with final drawing (status ‘released’).
Serial delivery always takes place based on a drawing with status ‘released’.

ii. Procedure

The buyer and the QAQC department must be informed about the delivery date. Upon delivery of the sample, it must be clearly indicated for whom the item is intended. This can be done by a mention on the packing slip, the packaging and/or on the item itself. The sample must be delivered to the delivery address on the purchase order, for the attention of QAQC/SAMPLES when it is requested by the quality team. Please pack the item separately and clearly state on the packaging and packing slip that it is a sample. After release by the QAQC department of a sample, an order of a 0-series will be delivered including measurement reports.

iii. Requirements for measurement report

All samples and 0-series must be supplied with measurement report. Each requested piece must be identifiable and matched with the accompanying measurement report, unless explicitly agreed otherwise with Lely. Preferably submit the measurement report digitally to QAQC via QAQC@lely.com prior to delivery. Indicate the date of digital delivery on the sample packing slip. If the sample is an assembly, the measurement report contains all sizes of both the assembly and the sub parts. What is measured, how it is measured, critical or important aspects, tolerances, treatment methods and other requirements that the product must meet, need to be coordinated in advance with the QAQC department.

iv. Coordination measurement and test procedure

Unless agreed otherwise with Lely Industries N.V, the supplier must develop measurement and testing procedures when applicable and validate them with Lely. Once validated, the supplier must demonstrate clear ownership of these procedures and seek continuous improvement.

v. Tooling

Upon delivery of a sample that has been created with the help of tools (like a welding jig or mold), a photo and possibly a drawing of the tooling must be shared with Lely. The maintenance of the tooling is the responsibility of the supplier. If revision or major maintenance need to take place, this must be reported to the buyer of Lely. The supplier then ensures that the revision and maintenance are carried out. Additionally, the supplier must guarantee that the requirements stated in the tooling agreement when applicable are met.

vi. Golden sample

The golden sample is one piece of the very first batch from series production that is in full alignment with the agreed requirements. In the event of subsequent quality deviations, this sample forms the standard against which all future mass-produced products might be compared to determine if they are up to standard. The supplier and QAQC Lely each keeps one golden sample from the same batch of series production, after approval of both samples by Lely.

b. 0-series

i. Purpose

The main purpose for the 0-series is to approve the production process and highlight quality risks before the start of manufacturing. Lely seeks the following objectives:

- A clear understanding of the production process
- The ability to anticipate potential quality problems that might occur during series production.
- Assurance that the agreed requirements will be met in series production.
- Assurance of the production process stability

ii. Procedure

If there is a delivery of a first or second 0-series, the QAQC department must be informed about the delivery date. Upon delivery of this 0-series, it must be clearly indicated for whom the 0-series is intended. This must at least be stated on the packing slip and the packaging, and possibly also on the item itself. If a measurement report is supplied, each item supplied must be clearly recognizable by marking so that the corresponding measurement report can be traced back to the items in question. Please pack and or deliver the 0-series separately and clearly state on the packaging and packing slip that it is a 0-series and for the attention of QAQC/0-series, the exact delivery address will be mentioned on the purchase order. For critical products, a first 0 series is first supplied on which, if the first 0 series meets all requirements, a second 0 series is used as standard. The number of 0-series can also be increased by Lely after internal consultation.

For some products, insight into the Quality Control Plan (or similar required documentation) which shows that the supplier has guaranteed quality, controlled work processes, trained personnel, guaranteed machines, and tools in good condition, et cetera might be requested from the supplier. In addition, a correctly completed measurement report must always be shared with Lely with a heading indicating that it's a measurement report and it should be named under the 0-series delivery.

In this stage, supplier must make agreements with sub-suppliers regarding delivery time, quality requirements, lead times outgoing inspections and all other aspects that may be important for a reliable and high-quality supply of the materials.

4. Series production

a. Quality control supplier

The supplier is obligated to diligently perform quality checks throughout the production process and maintain accurate documentation thereof. It is imperative that any deviations or irregularities are promptly identified, documented, and appropriately addressed, ensuring compliance with Lely's requirements. Furthermore, the supplier is responsible for defining the frequency of measurements after production and prior to shipment to Lely. This step is of utmost importance to guarantee that the end products consistently meet the specified criteria and conform to all agreed requirements.

b. Incoming quality control Lely

In accordance with our commitment to quality assurance and control, our incoming inspection process plays a pivotal role in ensuring that only items meeting our standards are accepted from the supplier. Upon initial inspection, a random sample is checked. Should no defective items be discovered, the batch is accepted. When defective items are discovered after the initial acceptance with defects that must have been present already upon arrival at Lely, then those items are claimed. In the event of identifying one or more defective items during incoming quality control, a secondary sampling procedure is initiated, in line with international sampling standards.
The extent of inspection of the entire batch depends on the criticality of the specific product under inspection. Ultimately, all identified defective items are claimed at the supplier, highlighting our strong dedication to maintaining good product quality.

c. Claim process

i. Procedure

When QAQC creates a claim, it will be sent by e-mail to the contact person for claims with the supplier. If an RMA number is required for the returned goods, the supplier must inform Lely in advance. Lely will then return the deviating items (possibly after receipt of the RMA number) to the sender. All claimed items must be credited to Lely within 30 days. The supplier will receive the items back if desired and process them at their own discretion. If the supplier chooses to (partly) reuse and repair the items, the ones to be delivered must always meet the specifications of Lely. Repaired and redelivered items must be marked separately with a blue sticker on the item itself, see also 4.C.iv Redelivery.

ii. 8D

When Lely decides to investigate and document some specific claims, a request for an 8D report is sent to the supplier. The main purpose of this methodology is to identify, correct, and eliminate recurring problems. Lely has its own 8D report template which the supplier is requested to complete and submit via email to QAQC@lely.com . For an 8D report to be efficient, all the steps need to be properly executed. The first 3 steps -D1 to D3- are to be completed and sent back to Lely within three days from the date the request for the 8D report was made. The supplier has a maximum of six weeks to complete the full report and email it to QAQC.

iii. Claim rejection

If supplier does not agree with a claim, they can make this known within 10 working days after receiving the claimed items via claimrejection@lely.com. In the objection, it must be clearly explained why supplier considers the claim unfounded, and evidence (such as test reports, photo material from research, etc.) must be included. Within 14 days supplier will be notified whether the objection has been granted or rejected.

iv. Redelivery

Redelivery of items by the supplier to Lely may occur when the initially delivered items fail to meet the requirements specified by Lely, necessitating a rework by the supplier. In such cases, it is crucial for the supplier to ensure that the repaired items are prominently marked with a clearly visible blue sticker on the items themself indicating that they have been reworked or repaired. The reworked items must always be added to a new PO as issued by Lely, and not shipped separately on supplier's initiative.

v. QC Deviation

If a delivered item does not meet the specification, Lely may decide to test the item for usability if there are urgent reasons for this. If the non-compliant item is accepted under certain conditions, Lely is allowed to set a reduced price, up to 50% of the regular purchase price. The supplier is not obliged to accept this price in condition that it provides replacement that is in full alignment with the quality requirements within the required timeframe.
All items that are not in accordance with specification, including those items that are nevertheless used under certain conditions, are included in the Reject Rate.

d. Supplier performance

Lely assesses the performance of suppliers on a monthly basis. Annual targets are set regarding OTD (On Time Delivery) and Reject Rate. OTD is measured by the number of orders delivered on the confirmed delivery date -1/+0 days during that period.
The Reject Rate is based on the number of items rejected and repaired (by Lely) delivered in a period compared to the total number of requested items during the same period.
In the monthly rating, which several suppliers also receive by e-mail, the total score of the supplier is displayed. This is an indication of the performance both in terms of OTD and Reject Rate. Either the consolidated rejection or Reject Rate- or OTD performance per product can give rise to improvement processes with the supplier.
Suppliers are assessed on the agreed target. A supplier will be notified if its Reject Rate or OTD exceeds this target. The supplier must take internal corrective action to improve the OTD and Reject Rate if below target.

e. QLTC-R

To measure the performance of the supplier, Lely uses the QLTC-R method. The abbreviation stands for Quality, Logistics, Technology, Cost & Risk. Using this method, the supplier's performance is measured and monitored on various aspects. The aim is to establish a KPI for each QLTC-R pillar and then assess the supplier accordingly.
During the QLTC-R meeting, amongst others the KPIs of Reject Rate and On Time Delivery are discussed with the supplier, whereby all ongoing actions of both parties are recorded and monitored in an action and decision log.
The frequency of the QLTC-R meetings with a supplier depends on procurement data (such as volumes, spend etc) and the risk categories of the parts bought from supplier.

5. Supplier quality organization requirements

a. Requirements for quality management system

Delivering high-quality products should be part of the corporate DNA of our suppliers. This vision should be supported by the entire management as well as in the workflow and it should be reflected in the supplier's quality system. Below are mandatory elements of the QMS, as required by Lely:

- If the production numbers require, the supplier shall apply statistical analysis. Insights into the process capability and machine capability are then the subject of discussion between the supplier and Lely. Directions can be given to improve the processes.
- Each supplier must be able to provide insight into how internal quality control and complaint handling are organized. Measurement reports must be made available on first request of Lely. Registrations are made of the internal rejection figures and -causes, and subsequently corrective and preventive measures are taken, which can be shared with QAQC Lely upon request.
- In case of complex products, Lely may require a Quality Control Plan or the execution of a (P)FMEA. In such a case, document must be submitted to and approved by Lely before the 0-series deliveries.
- Items can at least be traced back to a batch of raw material or a batch of subparts. Items are identified individually or by batch throughout the entire production and storage process. The only exception is so-called 'kanban items', which represent such a high volume and are of such limited individual interest to functioning and safety of the robot that an identification requirement is not applicable.
- When an item is produced with serial number, it must be identifiable and traceable at any time in the production and testing process. This also applies to any subparts that are provided with a serial number.
- All production and quality control data mentioned in this document must be kept for a period of at least three years, or for as long as the warranty period runs if this exceeds three years. On first request, the production and quality data must be shared with Lely, in a readable and usable format, at the discretion of Lely.
- Lely is a very innovative company. This means that new robots are designed and launched very regularly, and existing parts are continuously being developed. Therefore, version management is of great importance. Supplier must ensure that they produce and deliver the ordered version. When a major change is being prepared, supplier will be informed in advance of the date ('effectivity date') the new revision will be introduced. Usually, a major change concerns a completely new product that is ordered from a new supplier, or a change for which the production process from an existing supplier must be completely changed.
- If welding jigs, casting, measuring moulds or any other tooling are used, the supplier is responsible for the maintenance thereof, unless other agreements have been made with Lely, which have been recorded in writing. The supplier is responsible for guaranteeing and monitoring the correct condition of the moulds. If maintenance is required outside the predetermined intervals, the supplier must inform Lely about this and must adjust the maintenance frequency accordingly.
- Good quality control should not be limited to the production process. The supplier is also expected to ensure that any storage takes place under conditions that guarantee correct identification, the shortest possible lead times of stock and a suitable environment (clean, dry, dust- and frost-free, etc.) to ensure the stock maintains its original quality level.
- The roles and responsibilities regarding quality must be explicitly defined. Think of areas such as process design; design and execution of test- and inspection protocols or the blocking items or batches that do not meet Lely's quality requirements. The management must demonstrably commit itself to delivering the requested quantities, on time and of the requested quality.
- Where necessary, documentation must be available. Among other things this could entail process descriptions, work instructions, material certificates, qualification schemes and proof of training and/or certification, et cetera.

The form and scope of the quality management system differs per organization, but it must always be aimed at ensuring that the customer receives the desired quality, delivered on time in the right quantity.

b. Monitoring supplier quality performance

In order to guarantee optimal quality of the end product, all suppliers in the chain must demonstrably meet the set quality requirements. These requirements relate both to materials used and to the production process of the raw material or subcomponent, as well as to storage and transport.
The requirements set out in this manual regarding planning, quality assurance and monitoring must also be guaranteed at the sub-supplier level. Supplier must document the monitoring of these performances, with an interval that suits the product or raw material and its importance in the quality of supplier's end product.

c. Requirements for measuring equipment

Depending on the complexity of the delivered product, various measurements will be required to guarantee the quality of the deliveries. When measurements are carried out, the following must be demonstrably set up:

- Measuring equipment must be maintained and periodically checked and adjusted in accordance with manufacturer's recommendations.
- If the parts to be checked for Lely are supplied with a certificate (e.g., food safety or CE/UKCA), the measuring equipment must also be externally calibrated.
- A fitting jig is an indicative method and does not serve as a measurement. If a fitting jig is being used, it never replaces any measurement that is required (e.g., 1 piece of each batch).
- On request by Lely, the supplier must be able to provide information about the chemical material composition of the products.

Measuring instruments, tools and equipment as used in production and supporting processes, must be uniquely identifiable. They must undergo maintenance in a timely manner according to fixed frequency and be verified, calibrated, and if necessary, adjusted to ensure that the measurements and operations carried out lead to a qualitatively correct output. The verification, calibration, possible adjustment, and maintenance must take place by recognized qualified persons. There must be registration of verification, maintenance and if necessary calibration and, if applicable, a calibration certificate must be available and shared with Lely upon request.

d. Required process assurance

The supplier should have a high degree of control of the operations process. This covers production as well as purchasing, logistics, inventory management and all other aspects that can affect the constant delivery of a high-quality product. For this the following must be considered:

- The inventory management system must be FIFO (First In, First Out) organized. This should ensure that the stock is optimally managed and regularly refreshed.
- We expect relevant records to be made of the production process. This could be for example the input control and test of subcomponents; relevant conditions during the production process (environmental factors such as temperature and humidity if relevant, chemical composition of surface treatment agents, etc.); failure during the production process; failure reasons; traceability to a particular operator; proof of training, certifications and qualification for performing certain tasks, maintenance schedules of machines, equipment and accessories such as welding or casting molds et cetera. All relevant registrations must be consultable during the entire warranty period.
- If the supplier or Lely finds that improvement is needed in (one of) the production processes, the supplier must start such an improvement process without delay. The supplier must make sufficient people with the right capabilities available for this, coming from the internal organization or externally. This can relate to either proven quality issues or to measures to address risks so as to prevent future delivery problems.

Continuous improvement is an important characteristic of the suppliers with whom Lely experiences a fruitful, long-term cooperation. This is what we expect from our supply partners: a secure production process, in combination with an improvement focus. To realize these two things, the LEAN methodology is helpful. This is also in line with the Lely Production System, which is based on the LEAN Six Sigma approach.

e. Special requirements for quality controls

When a 3D measuring arm is used, it is required that the supplier draws up a measurement program. QAQC must approve the program and coordinates it with the supplier. If a measurement report is required and the supplier cannot provide it (with the required accuracy), the supplier is expected to have a measurement report drawn up by a certified external party.
For some products, QAQC is in the lead to describe the measurement protocol. This measurement protocol is drawn up using the digital measuring arm. QAQC provides a demonstration to the supplier (at the Lely facilities or at the supplier, either in person or remotely) of how the measurement points are defined, and then the protocol is released by QAQC and adopted by the supplier. The protocol describes which reference plane is used and where exactly (measuring point) should be tested.
For some products, fitting jigs are designed in collaboration between the supplier and PD Lely. The moulds give an idea of the usability (controlled part) but cannot replace the requirements as stated in the drawing or the measurement requirements. Even when the supplier is the owner of the moulds, together with Lely they define how often should the moulds be measured and validated.
For some parts, and in particular castings (plastic or aluminum), so-called golden samples must be stored by the supplier and by QAQC Lely. If a golden sample is required, the supplier keeps one piece of the very first batch from series production which is in full alignment with Lely's requirements. The golden sample must be stored in a way that excludes any form of deterioration of the product. QAQC Lely also keeps, after approval, a piece of this very first series-produced batch as a reference. In the event of subsequent quality deviations, the golden sample forms the standard against which is tested.

f. Training and qualification of personnel

Supplier shall provide appropriately qualified and certified personnel in the QA and QC functions corresponding with the responsibilities and skill levels required to perform the work. The QC personnel shall be qualified, experienced and, where required, certified to perform the work in their assigned positions.
The Supplier QMS shall include an organization chart clearly showing assignments of all planned quality personnel for the project and their reporting relationships from the inspector level to the quality management representative. Lely shall be promptly notified in writing of any proposed changes to key personnel of the supplier.
The Supplier will be responsible for maintaining records and qualifications for all personnel engaged to perform work as part of the Purchase Order or Contract Agreement. These records shall be made available for Lely review upon request for approval.
The QC personnel shall be assigned to their tasks in accordance with the skill matrix. QC shall have the necessary authority and reporting relationships to be sufficiently independent of the production.
Supplier shall implement an ongoing training and competency program to introduce and familiarize all personnel with the requirements for their area of responsibility. Training requirements shall be identified in a training plan or procedure and will be included in the quality management system. The training plan shall encompass organizational and procedural information as well as technical and safety topics. The system shall ensure that required procedures are available and to confirm that personnel are aware of the requirements and regulations pertinent to their activities.

g. Collaboration with Lely

The supplier shall perform analysis on Lely's complaints and field failures, including any returned defective items, and shall initiate problem solving and corrective action to prevent recurrence. For handling the resulting complaints with a structured and transparent approach the Eight Disciplines of Problem-Solving (8D) methodology shall be implemented. The purpose of 8D is to identify, correct, and eliminate recurring problems to improve processes and product quality and reduce cost. The results of the 8D analysis shall be communicated to Lely within the agreed timeframe.

h. Audits

The Supplier shall develop and maintain a documented internal audit procedure encompassing their quality management activities and those of the sub-suppliers. The frequency and scope of the audits shall be sufficient to provide assurance of the quality of work. The supplier may be requested to submit these documents to Lely. In such case, these documents shall be made available to Lely upon first request.
Lely may request an opportunity to audit the Supplier's quality system during period of the Purchase Order/Contract Agreement. Lely reserves the right to perform quality audits or participate as observers in Supplier audits during the execution of the works to verify compliance with the Purchase Order requirements. The supplier shall provide Lely access to all documentation and work sites for the purpose of review, surveillance, and auditing activities.
Notice to perform a regular audit will be given in writing by Lely, the supplier shall confirm its availability at least two weeks prior to the scheduled audit date. At the end of the audit, the major findings are to be communicated with the supplier. The rest of the findings and observations will be indicated in an audit report to be sent by Lely to the supplier within one week after the audit date.
When a major quality issue occurs and require immediate actions, an emergency audit is to be conducted if necessary. Lely will inform the supplier at least 2 days before the audit date and the supplier shall confirm one day before the exact date of the audit.
If any findings or recommendations arise from the audit, it is the supplier's responsibility to take appropriate corrective actions to promptly remediate all non-conforming products or activities. Lely QAQC will follow up on these actions with the supplier until the closure of all findings.

6. **References**

The following reference list contains the sources used to support the content of this document:

- Non-Conformity catalogue
- Quality Conformity Documents
- General packaging agreement

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