



LILIUM





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**SUPPLIER VERSION**

## Purpose and Scope

### PO Document Level:

- Level 0 (Policy)
- Level 1 (Directive)
- Level 2 (Process)
- Level 3 (Procedure)
- Level 4 (Working Document)

## Purpose

The purpose of this document is to provide Suppliers and their lower tiers standard requirements for their Quality Management and Assurance System.

## Scope

This document is applicable to all Suppliers and their lower tiers supplying Liliium eAircraft GmbH (hereinafter also referred to as “Liliium”) with flying parts and/or services used for aircraft manufacturing.

## Released By

For change history see page 5 of this document

Position / Role	Name	Date	Signature
CMO & Acc. Mgr. PO	On File	05.09.2021	On File
PO Quality Mgr.	On File	05.09.2021	On File
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## Change History

Document Revision: 09

Revision	Change description	Date
01	First Issue	28.04.2020
02	Added Certificate of Conformity requirements, associated Appendixes (3, 4), and clarified roles.	20.05.2020
03	Formal changes indicated with black line left / General administrative edits and addition of QMS requirements for Deliverable Software and Distributors.	26.06.2020
04	Added First Article Inspection, Production Part Approval Process, Key Characteristics, Delegation, Concessions, and Accompanying Documentation requirements. Change to company reference from Lilium GmbH to Lilium eAircraft GmbH.	08.09.2020
05	General administrative updates through-out the document. Incorporation of the Lilium Quality Assurance Requirements for Suppliers.	30.11.2020
06	Legal Company reference data in document footer added	16.02.2021
07	Added Special Process requirements, supplier obligations for Concessions. Updated accompanying documentation and incorporated general optimizations and clarifications through-out.	20.05.2021
08	Updated requirements of Distributors (F-Type Quality Management System Classifications)	21.06.2021
09	Updated requirements for service provider and suppliers of COTS, standard parts, and raw materials (C-Type Quality Management System Classifications), added requirements for Supplier Manufacturing Digital Data Conversion, and general administrative changes through-out.	03.07.2021

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# 1. Definitions and Acronyms

## Definition of terms

Terms used in this Document and not of general understanding and common sense are described below

Term	Definition
<i>Advanced Product Quality Planning</i>	A structured process that drives a quality focused approach to product development through the use of a phased planning process within which specific deliverables are established, monitored, and tracked to closure, while highlighting and mitigating risks as they are identified.
<i>Build-to-Print Supplier</i>	A Supplier who produces an item according to design data released by Lilium to the Supplier e.g., Lilium provides drawings, and the Supplier is responsible for producing the item according to the drawing, using the specified materials and processes.
<i>Certificate of Conformity</i>	A document issued by the supplier to confirm that the delivered items fulfill the relevant specification, applicable design data (e.g., drawing) and purchase order requirements.
<i>Concession</i>	A Concession is a Design Organization approval with a unique reference number giving acceptance for use or release of an item that shows a deviation to the specified design data.
<i>Coupon</i>	A representative or equivalent sample of an item under test that has been prepared in such a way that its failure will be representative of the larger production item.
Commercial off the Shelf	Commercially available applications, typically defined by industry recognized specifications or standards, sold through public catalog listings.
<i>Deliverables</i>	Items or documents (outputs) completed as part of the APQP process.
<i>Deliverable Software</i>	Embedded or loadable airborne or ground support software or firmware components which are part of an aircraft type design.
<i>Destructive Methods</i>	Tests carried out to the specimen's failure, in order to understand the specimen's performance or material behavior under different scenarios.
<i>Item</i>	A part, product, or equipment.

# 1. Definitions and Acronyms

Definition of terms

Terms used in this Document and not of general understanding and common sense are described below

Term	Definition
<i>First Article Inspection</i>	Also referred to as production process verification (PPV) a planned, complete, independent, and documented inspection and verification process to ensure that prescribed production processes have produced an item conforming to engineering drawings.
<i>Material Safety Data Sheet</i>	A technical document that includes information such as the properties of each chemical; the physical, health, and environmental health hazards; protective measures; and safety precautions for handling, storing, and transporting the chemical.
New Product Introduction	Activities within an organization to define, develop and/or launch a new or improved product.
<i>Non-Destructive Testing</i>	Inspection methods for the testing of the material properties on specimens without impairing their future usefulness.
<i>Quality Escape</i>	Any item released by the Supplier to Lilium that is subsequently determined to be nonconforming to contract and/or technical specification.
Service Provider	A Supplier providing a service either onsite or offsite e.g., outsourcing, offload, operational processing (conventional/special processes, laboratory test, etc.) on an item.
<i>Special Process</i>	A process that alters a part or assembly characteristic in a way that cannot be directly measured without destructive methods is treated as a Special Process. This includes processes or operations that create or change the electrical, chemical, physical and/or metallurgical properties of a component and processes that remove/deposit materials on a component, in case the output cannot be evaluated by any non-destructive testing and measuring methods. In addition, non-destructive testing and materials testing methods are defined as special processes.
<i>Subtier</i>	A company contracted by the Supplier to furnish product, parts, raw materials or services to the Supplier or Lilium.



# 1. Definitions and Acronyms

## Definition of terms

Terms used in this Document and not of general understanding and common sense are described below

Term	Definition
<i>Supplier</i>	A company directly contracted by Lilium to supply flying products, parts, raw material, or aircraft manufacturing to Lilium.

# 1. Definitions and Acronyms

## Acronyms

(Document specific only)

The following identifies all acronyms used in this Document

Acronym	Description
APQP	Advanced Product Quality Planning
CB	Certifying Body
CofC	Certificate of Conformity
COTS	Commercial off the Shelf
EASA	European Union Aviation Safety Agency
FAA	Federal Aviation Administration
FAI	First Article Inspection
FAIR	First Article Inspection Report
FOD	Foreign Object Debris
IT	Information Technology
LBA	Luftfahrt Bundesamt
MSDS	Material Safety Data Sheet
NDA	Non-Disclosure Agreement
NDT	Non-Destructive Test

# 1. Definitions and Acronyms

## Acronyms

(Document specific only)

The following identifies all acronyms used in this Document

Acronym	Description
NPI	New Product Introduction
OP	Other Party
PO	Purchase Orders
PPAP	Production Part Approval Process
QMS	Quality Management System
SCQM	Supply Chain Quality Manager
SP	Special Process

## 2. References to other documents



Doc.Ref.	Document full name
<a href="#">ARP/EN/SJAC 9136</a>	Root Cause Analysis and Problem Solving (9S Methodology)
<a href="#">AS/EN/JISQ 9100</a>	Certified Quality Management System Norm in Aviation and Space
<a href="#">AS/EN/JISQ 9103</a>	Variation Management of Key Characteristics
<a href="#">AS/EN/SJAC 9102</a>	Aerospace First Article Inspection Requirement
<a href="#">AS/EN/SJAC 9115</a>	Quality Management Systems - Requirements for Aviation, Space and Defense Organizations - Deliverable Software
<a href="#">AS/EN/SJAC 9120</a>	Quality Management Systems /Requirements for Aviation Space and Defense Distributors
<a href="#">AS/EN/SJAC 9131</a>	Aerospace Series - Quality Management Systems - Nonconformance Data Definition and Documentation
<a href="#">AS/EN/SJAC 9145</a>	Requirements for Advanced Product Quality Planning and Production Part Approval Process
<a href="#">AS/EN/SJAC 9146</a>	Foreign Object Damage (FOD) Prevention Program - Requirements for Aviation, Space, and Defense Organizations
EN 4179	Qualification and approval of personnel for non-destructive testing
<a href="#">ISO 9001</a>	Certified Quality Management System Norm
LPOPOE0000POL	Production Organization Exposition
LPOSP00001DIR	LP Procurement and Supplier Management

## 2. References to other documents



Acronym	Description
NAS410	Certification and Qualification Requirements for Non-destructive Test Personnel
<a href="#">Part 21G POA</a>	Production Organization Approval according to EU regulation 748/2012 Subpart G

### 3. Roles and Responsibilities



Role / Function	Description
Supply Chain Quality	Is the Lilium Organization responsible for executing and managing the Lilium and Supplier interfaces mentioned within the Supplier Quality Management System Handbook.
Supply Chain Quality Manager	It is the Supply Chain Quality Manager's responsibility to verify and validate compliance to this directive and where mentioned the primary point of contact for the Supplier.
Supplier	It is the Supplier's responsibility to ensure that their Quality Management System and the Quality Management System of their Subtier suppliers operate in accordance with this Directive.

## 4. General Policies

Customer safety and satisfaction within the business of Lilium requires that flight and product safety be our highest value

Customer safety and satisfaction within the business of Lilium requires that flight and product safety be our highest value.

Product and flight safety are greatly influenced by our Suppliers. Therefore, the Supplier's ability to supply conforming, reliable, and safe parts and products that meet our Lilium quality requirements is mandatory for the sourcing of flying parts, products, and equipment.

To achieve Lilium's high quality standards and be competitive on the market, Suppliers and Lilium must work cooperatively to apply a consistent quality system and execute continuous improvement.

The quality requirements represented in this document are mandatory, unless otherwise stipulated in the contract, and are to be applied by all Suppliers and their lower tiers for business with Lilium.

**ATTENTION:** To secure its application, this document will be referenced as applicable within contracts, purchase orders, or any other contractual documents between Lilium and Suppliers.

The content of this document needs to be proven by the Supplier during qualification by Lilium and is to be maintained throughout the validity of the contract duration. The Lilium Supply Chain Quality Organization by executing supplier control, surveillance and auditing will ensure this throughout the duration of the Supplier contract.

The Supplier shall also obligate its Subtier suppliers to comply with the duties and obligations upon it according to the Lilium Supplier Quality Management System Handbook

## 5. Supplier Quality Management Systems Classification

Lilium's requirements for our Supplier's QMS are as follows

### A - Type QMS

The Supplier has been granted and maintains a Part 21G Production Organization Approval in accordance with EU Regulation 748/2012 or similar Regulations given by other Aviation Authorities e.g., FAA. This Supplier acts with quality mind set in accordance with this Handbook and must apply his approved Production Organization Approval QMS to supply goods listed on his Capability List with an Authorized Release Certificate e.g., EASA Form 1, FAA Form 8130-3 and documentation according to sections [15](#) and [16](#), respectively. Delivered Items not listed on his capability list in lieu of an Authorized Release Certificate e.g. EASA Form 1, FAA Form 8130-3, the Supplier is requested to deliver with a CofC; further documentation requirements given by sections [15](#) and [16](#) remain unchanged.

### B - Type QMS

The Supplier has implemented and proven compliance with AS/EN/JISQ 9100, by having received a certification from an AS/EN/SJAC 9104-001 accredited organization indicating his company is AS/EN/JISQ 9100 approved and maintains this certification. This Supplier acts with a quality mind set in accordance with this Handbook and must supply goods with a CofC and documentation according to sections [15](#) and [16](#), respectively.

### C - Type QMS

The Supplier has implemented and proven compliance with an applicable ISO standard (e.g. ISO 9001, ISO/IEC 17025, IATF 16949, etc.) by having received a certification indicating his company is ISO approved and maintains this certification. This Supplier acts with a general quality mind set. In terms of aviation business Suppliers providing items other than services, laboratory test. COTS, standard parts, or raw material must adapt his ISO 9001 QMS in accordance with [section 6](#) of this Handbook and must supply goods with a CofC and documentation according to sections [15](#) and [16](#), respectively. Suppliers providing services, laboratory test, COTS, standard parts, and/or raw material must supply goods with documentation according to [sections 16](#).



## 5. Supplier Quality Management Systems Classification

Lilium's requirements for our Supplier's QMS are as follows

### **D - Type QMS**

The Supplier has none of the previously described Quality Management Systems. To conduct business with Lilium the Supplier prior to signing the compliance agreement fully accepts to implement the QMS requirements given by this document. The Supplier must secure within an adequate time frame Quality Management System certification from an accredited organization in order to become an approved Lilium Supplier. Until such time, this Supplier in terms of aviation business with Lilium must supply goods with a CofC and documentation according to section [15](#) and [16](#) respectively in addition to an onsite inspection of finished goods conducted by a Lilium Supply Chain Quality Manager (or approved delegate) prior to each delivery.

### **E - Type QMS (Deliverable Software ONLY)**

The Supplier has implemented and proven compliance with AS/EN/JISQ 9100, by having received a certification from an AS/EN/SJAC 9104-001 accredited organization indicating his company is AS/EN/JISQ 9100 approved and has supplemented their Quality Management System in accordance with AS/EN/JISQ 9115 for Deliverable Software activity.

This Supplier acts with a quality mind set in accordance with this Handbook and must supply software with a CofC and documentation according to sections [15](#) and [16](#) respectively.

### **F - Type QMS (Distributors ONLY)**

The Distributor has implemented and proven compliance with AS/EN/JISQ 9120, by having received a certification from an AS/EN/SJAC 9104-001 accredited organization indicating his company is AS/EN/JISQ 9120 approved and maintains this certification and/or proven compliance with ISO 9001, by having received a certification from an accredited organization indicating his company is ISO 9001 approved for the distribution of items and maintains this certification. This Supplier acts with a quality mind set in accordance with this Handbook and must supply goods with documentation according to [section 16](#).

## 6. Supplier Quality Management System Requirements

A set of interrelated elements established with policies and objectives to direct and control an organization with regards to quality.

When requested the Supplier must be able to present to Lilium a current and valid certificate according to [Table 1](#) and where a supplementary QMS requirement is identified ensures that their Quality Management System has incorporated the supplementary standard or applicable requirements therein.

**ATTENTION:** To demonstrate compliance with the requirements of Part 21 Subpart G, specific sub-sections of AS/EN/JISQ 9100 chapters have been mapped to Part 21 Subpart G, GM 21.A.139(b)(1). These chapters are denoted by a “\*” in [Appendix 1](#).

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## 6. Supplier Quality

### Management System Requirements

A set of interrelated elements established with policies and objectives to direct and control an organization with regards to quality.

Table 1, Liliium QMS Requirements by Supplier Classification

Classification	Certificate	Supplementary QMS Requirement
A-Type	<a href="#">Part 21G</a> or equivalent <sup>(1)</sup>	None
B-Type	<a href="#">AS/EN/JISQ 9100</a> <sup>(1)</sup>	None
C-Type	<a href="#">ISO 9001</a>	<a href="#">Appendix 1</a> / C-Type* <sup>(1)(2)</sup>
E-Type	<a href="#">AS/EN/JISQ 9100</a> <sup>(1)</sup>	<a href="#">AS/EN/JISQ 9115</a> <sup>(1)</sup>
F-Type	<a href="#">AS/EN/JISQ 9120</a>	None
	<a href="#">ISO 9001</a>	

<sup>(1)</sup> To get a record of evidence for the established Quality Management System, “LPOSP00014TMP0E\_LP Supplier Compliance Agreement” (Reference [Appendix 6](#)) needs to be completed and signed by the Supplier and Liliium. The signed “Supplier Compliance Agreement” shall be handled as part of the general Supplier contract and maintained on file by both the Supplier and Liliium.

<sup>(2)</sup> Suppliers, with the exception of Service Providers, COTS, standard parts, or raw material Suppliers, falling within the classification of C-Type must review [Appendix 1](#) and identify the highlighted AS/EN/JISQ 9100 requirements to be incorporated into their Quality Management System.

## 7. General Supplier Quality Management System Requirements

The following requirements must be applied by each Supplier according to the classification in section 5 of this document

### 7.1 Requirements for all Suppliers

The Supplier must grant Lilium the right to conduct audits of their Quality Management System and issue non-conformances regardless of certification or Lilium approval status.

The Supplier must grant Lilium access to review their Quality Management System, audit plans, and audit reports regardless of certification or Lilium approval status.

The Supplier must immediately notify their Lilium Supply Chain Quality Manager if there are major changes to their Quality Management System or certification (e.g. major findings, decertification, change in management, change in location).

In the event of findings derived from a Lilium conducted audit or assessment, or the Supplier itself identifies a QMS or technical non-conformity affecting product already delivered to Lilium (Quality Escape), the Supplier shall conduct and submit corrective action in accordance with ARP/EN/SJAC 9136, Root Cause Analysis and Problem Solving (9S Methodology).

When requested by the Authority (e.g., EASA, FAA, LBA) the Supplier must provide the Authority right of access to facilities. Reasonable restrictions made by Supplier to protect its business secrets shall be respected.

The Supplier must implement procedures that ensure Lilium is aware of Quality Management System non-conformities and has access to detailed information within these non-conformities.

## 7. General Supplier Quality Management System Requirements

The following requirements must be applied by each Supplier according to the classification in section 5 of this document

For the purposes of implementation of this directive, the Supplier must purchase and keep, according to its classification, on premise a copy of the latest release of the below aerospace standards:

Classification	Doc.Ref.	Document Full Name
B-Type	<a href="#">AS/EN/JISQ 9100</a>	Certified Quality Management System Norm in Aviation and Space
C-Type	<a href="#">AS/EN/JISQ 9100</a>	Certified Quality Management System Norm in Aviation and Space
	<a href="#">ISO 9001</a>	Quality Management System – Requirements
E-Type	<a href="#">AS/EN/JISQ 9100</a>	Certified Quality Management System Norm in Aviation and Space
	<a href="#">AS/EN/JISQ 9115</a>	Quality Management Systems - Requirements for Aviation, Space and Defense Organizations - Deliverable Software
F-Type	<a href="#">AS/EN/JISQ 9120</a>	Quality Management Systems /Requirements for Aviation Space and Defense Distributors
	<a href="#">ISO 9001</a>	Quality Management System – Requirements

### 7.2 Requirements for Suppliers with OP Certifications

During an OP (CB) audit the Supplier must provide the OP (CB) access to Lilium proprietary data exclusively to the level absolutely necessary and requested to support the audit. The Supplier must ensure compliance with contractually imposed NDA and export control requirements.

The OP (CB) service agreement provides for “right of access” to all OP (CB) records by Lilium as such the Supplier must grant Lilium the right of access to review OP audit results, findings and associated corrective actions. When requested the Supplier must grant Lilium access to their IAQG OASIS Level 2 assessment results.

When requested by the competent Authority (e.g. EASA, FAA, LBA) the Supplier must provide the Authority access to review OP audit results, findings and associated corrective actions.

## 8. Supplier First Article Inspection Requirements

Also referred to as production process verification (PPV) a planned, complete, independent, and documented inspection and verification process to ensure that prescribed production processes have produced an item conforming to engineering drawings.

### 8.1 General First Article Inspection Requirements

The Supplier shall perform a First Article Inspection for a part number if any of the following conditions occur:

- First time product is manufactured for production,
- A change in the design affecting fit, form, function and/or interchangeability of the part,
- A change in manufacturing source(s), process(es), Special Process(es), inspection method(s), acceptance criteria, location of manufacture, tooling, or materials,
- A change in numerical control program or translation to another media that is utilized to produce end item parts,
- A natural or man-made event, which may adversely affect the manufacturing process,
- A lapse in production for two years, or as specified by Lilium,
- Product related needs, e.g., occurrence report, or
- As requested by Lilium and/or demand from the Authority.

Unless contractually required, a FAI does NOT apply to:

- Development and prototype parts that are not considered as part of the first production run.
- Unique single run production orders not intended for serial production (e.g., out-of-production spares).
- Procured standard catalogue items, COTS, or deliverable software ([section 8.3](#)).

The inspection shall include, but not be limited to a complete documented verification of all dimensions, features, notes, and specifications identified in the contract and on all provided key characteristics.

For any changes to the product, a partial FAI of the only the applicable changes are required. Additionally, the Supplier shall ensure that all operations outsourced conform to AS/EN/SJAC 9102, “Aerospace First Article Inspection Requirement”.

## 8. Supplier First Article Inspection Requirements

Also referred to as production process verification (PPV) a planned, complete, independent, and documented inspection and verification process to ensure that prescribed production processes have produced an item conforming to engineering drawings.

### 8.2 First Article Inspection Report Requirements

The Supplier must utilize the most current version of AS/EN/SJAC 9102 for their First Article Inspection, utilizing AS/EN/SJAC 9102 Forms 1, 2, and 3 or equivalent forms containing all “Required” and “Conditionally Required” information as outlined in AS/EN/SJAC 9102.

The Supplier must submit the FAI report and copies of the supporting documentation as evidence of conformance to this requirement during any on-site inspection of the product.

When requested, the Supplier must also provide evidence of inspections performed to verify conformance of subsequent build lots/shipments.

Before the start of series production and prior to shipment, the Supplier shall submit to Liliium in accordance with the agreed time schedule electronic copies of the First Article Inspection Reports (FAIR) and all supporting documentations\*.

A Liliium on-site inspection may be required prior to the release of finished goods. The Supplier shall support the on-site inspection in accordance with the agreed time schedule.

The Supplier shall retain all records pertaining to the First Article Inspection Report (FAIR) as set forth [section 17.3](#).

\*Supporting documentation may include certificates of conformity for raw materials and Special Processes (as defined in the AS/EN/SJAC 9102 specification and identified on the engineering drawing), drawings, and test reports.

## 8. Supplier First Article Inspection Requirements

Also referred to as production process verification (PPV) a planned, complete, independent, and documented inspection and verification process to ensure that prescribed production processes have produced an item conforming to engineering drawings.

### 8.3 Deliverable Software First Article Inspection Requirements

Requirements for FAI of Deliverable Software are embedded in AS/EN/SJAC 9115 under the Control of Production and Service Provision.

For software product configuration verification, configuration audits must be performed by the Supplier to determine whether a product conforms to its performance and functional requirements, and the as-built technical documentation.

A configuration audit of software shall be performed by the Supplier to verify:

- All design and development activities, data, and documents are complete and documented information retained according to [section 17.3](#),
- All problem reports and change requests are identified and dispositioned,
- The build instructions to ensure the deliverable object code can be regenerated from the source code,

- Software requirement deviations are recorded and approved,
- The software can be loaded into the target computer and initialized,
- The software was tested and accepted in accordance with the requirements,
- Traceability exists from the software product to the requirements,
- The software and its media are correctly identified and protected from overwrite,
- The software and its media are corruption free,
- The software and its media are free of malicious code (e.g., viruses, mal-ware); and
- The source code is identified and under configuration control.

The above objectives can be verified by the accumulation of evidence throughout the software life cycle and audits of the configuration management system can be addressed through internal Supplier audits and/or the planned Liliium audit activities.



## 9. Supplier Special Process Requirements

A process that alters a part or assembly characteristic in a way that cannot be directly measured without destructive methods is treated as a Special Process.

Lilium Build-to-Print Suppliers and Suppliers providing a Special Process as a service shall pay close attention to the identification, control and documentation of Special Processes derived directly from Lilium design data. The Supplier must refer to the design requirements for each item, specifically the Lilium drawing and specifications, to identify their Special Process requirements.

In addition to the Special Processes identified in the Lilium design data, the Supplier shall refer to the Special Process list provided in [Appendix 5](#).

### 9.1 Special Process Qualification Requirements

Lilium requires the Special Process qualification of Supplier facilities as a means of ensuring product conformity against the applicable Lilium process specifications and corresponding drawings.

Lilium shall have the right to perform a Special Process qualification in two phases:

**Capability Demonstration:** The Supplier must demonstrate, via a technical study, that the production or test environment is capable of performing the Special Process. It can be done via Coupon or item demonstration.

**Validation Run:** The Supplier must apply the Special Process on the specific item or set of items to validate, via a technical study, that the process and component satisfies the requirements as stated in the design data. The results must be submitted to Lilium as part of the Supplier's FAIR ([section 8.2](#)).

For each Special Process, a qualification plan shall be prepared by the Supplier and submitted to Lilium for approval. After approval of the plan, Supplier shall perform any corresponding tests in order to demonstrate process capability.

A Special Process (SP) qualification file must be prepared by the Supplier for both the initial qualification and any subsequent renewals.

## 9. Supplier Special Process Requirements

A process that alters a part or assembly characteristic in a way that cannot be directly measured without destructive methods is treated as a Special Process.

The following documents are required as a minimum as part of the SP qualification file:

- List of Liliu Design Requirements
- Manufacturing documents, and other reference documents with revision numbers
- List of any existing or former approvals of the process
- Operator training and/or proficiency records
- List of consumables used in the process
- List of all facilities, equipment, and control documents used for the process
- Process control, monitor and audit plans
- Test results (or demonstration of process capability)
- Nadcap or any other certifications related to the Special Process

All documents are required; in the case any of the document cannot be provided, the Supplier shall submit to Liliu a written reason for the deviation in the SP qualification file.

Liliu will provide SP qualification decisions as noted below:

- Liliu declares the Supplier as a Liliu certified Special Process source.
- Liliu declares a temporary approval on the application of Special Processes on a limited period or for only defined components, until the corrective action(s) is closed
- Liliu declares an approval with certain limitations in the basis of process application, method, consumable use, special monitoring methods, specifically trained personnel application, and others.
- Liliu rejects the Supplier as a certified Special Process Source.
- Liliu cancels the Special Process Certification of Supplier.

To get a record of evidence for the Special Process approval, “LP0MP00020TMP0A\_LP Special Process Certificate” (Reference [Appendix 6](#)) needs to be completed and signed by the Supplier and Liliu. The signed “Special Process Certificate” shall be handled as part of the general Supplier contract and maintained on file by both the Supplier and Liliu.

## 9. Supplier Special Process Requirements

A process that alters a part or assembly characteristic in a way that cannot be directly measured without destructive methods is treated as a Special Process.

### 9.2 Control of Personnel, Equipment and Consumables Requirements

#### 9.2.1 Personnel Requirements

The Supplier shall be responsible for setting the competency, training, and authorizing its personnel based on internal documents or the specific technology domain and/or industrial specifications.

The Supplier must ensure its personnel and the personnel of its Subtier suppliers initiate and maintain a training program that covers each Special Process performed on Liliu product.

Liliu is entitled to request and the Supplier must provide details of Special Process training given to personnel involved in the execution of the Special Process. The training records must be in line with the level of competency and specified authorizations assigned as a part of the approved Special Process Qualification File.

The Supplier shall monitor and control any re-occurring personnel certifications within the required time interval e.g., NDT personnel qualification certificates, annual visual acuity test, process examinations.

Deviations from the above personnel competency requirements or initial training plan shall be reported and must be approved by Liliu.

The training, qualification, and certification of NDT personnel shall be per:

Doc.Ref.	Document full name
EN 4179	Qualification and approval of personnel for non-destructive testing
NAS410	Certification and Qualification Requirements for Non-destructive Test Personnel

## 9. Supplier Special Process Requirements

A process that alters a part or assembly characteristic in a way that cannot be directly measured without destructive methods is treated as a Special Process.

### 9.2.2 Equipment Requirements

The Supplier shall identify and record in their manufacturing and quality procedures the method of generation, control, and measurement of equipment parameters during the Special Process operation. Any testing to implement equipment involved in the Special Processes shall be identified in the SP Qualification File and is subject to Liliium approval.

The Supplier shall track the calibration of any tooling and equipment used in the execution of Special Processes.

### 9.2.3 Consumables and Chemicals Requirements

The Supplier must identify and list all consumable used during the implementation and execution of the Special Process. When requested by Liliium, the Supplier must be capable of producing the MSDS and CofC (if applicable) for to the listed consumables.

The Supplier must be capable at all times of demonstrating the conformity of consumables specified in the design data. For any other consumable not covered in design requirements their use and their function shall be presented to Liliium. Liliium may request Coupon acceptance test for the consumables.

### 9.3 Special Process Change Management Requirements

The Supplier must inform Liliium of any changes to Special Processes regardless of whether the change is defined as administrative or technical.

Special Process changes must be evaluated in a functional group which includes both Supplier and Liliium representatives. The functional group shall review, substantiate, and approve the change.

The Supplier shall provide upon Liliium's request additional technical studies such as literature review, Coupon and/or item demonstrations, or test reports in order to reapprove the Special Process according to [section 9.1](#).

## 9. Supplier Special Process Requirements

A process that alters a part or assembly characteristic in a way that cannot be directly measured without destructive methods is treated as a Special Process.

### 9.4 Cancellation and Renewal of Special Process Certifications

Lilium is entitled to cancel the Special Process certification if the Supplier or its Subtier suppliers consistently demonstrates that it is not able to execute Special Processes in a manner consistent with its initial qualification.

The following circumstances are cases in which cancellation could occur, but this list is not exhaustive:

- Changes in facility and equipment
- Changes to the methods of equipment or tool calibration and maintenance
- Failure to demonstrate Special Process capability as specified in [section 9.1](#)
- Failure to meet design requirements
- Increased occurrence rate of nonconformities totaling 25% or more of the production volume within 2 weeks of operation
- Discovery of latent defects not captured in the approved validation

- Unmanaged changes to process equipment or tooling
- Lack of personnel competency
- Failure to maintain consistent production
  - 6 months of process inactivity
  - 3 months of inactivity producing the affected Lilium items

Lilium may renew the Supplier's Special Process certification only after sufficient demonstration of a Special Process capability equivalent to the initial qualification.

## 10. Supplier Manufacturing Digital Data Conversion Requirements

Configuration Management is key for the required traceability from the first sketch to the final manufactured product.

The Supplier shall have a configuration management process that ensures that the current and latest revision levels of Technical Data received from Liliium is controlled in a manner that maintains two-way traceability from the definition documentation to the final item and from the final item back to the definition documentation.

### 10.1. CAD Compatibility Requirements

Any Technical Data transferred to Liliium shall be in accordance with Liliium standards, or as otherwise mutually agreed between the Supplier and Liliium.

Formal Technical Data releases, including drawings, specifications, documents, requirements, analysis, software code, etc. shall be provided to the Supplier in a digital format defined by Liliium.

Any electronic file exchanged from the Supplier to Liliium shall be capable of being opened by Liliium without any restrictions.

The Supplier shall ensure that any drawings and 3D-models transferred to Liliium are compatible with Siemens NX Design tool or a tool mutually agreed between the Supplier and Liliium.

**ATTENTION:** PREFERRED formats are STEP and Parasolid.

All technical documentation and written technical correspondence provided to Liliium shall be in English language.

### 10.2. CAD Conversion Requirements

If the Supplier's manufacturing and inspection software utilizes a different digital data format than provided by Liliium, the Supplier must establish a documented process for the conversion of the digital data set received from Liliium to their local format.

## 10. Supplier Manufacturing Digital Data Conversion Requirements

Configuration Management is key for the required traceability from the first sketch to the final manufactured product.

The Supplier must establish acceptance criteria for the accuracy of translated surface profile/geometry and tolerances and subsequently shall ensure the end product will be within engineering tolerance/specification (typical allowable deviation is 1/10th of the tightest engineering tolerance).

For traceability, all Technical Data translated by the Supplier shall reference the same unit of measure as the original data set provided by Lilium.

The Supplier shall ensure the verification process for all entities within datasets containing 3D annotation (i.e. feature control frames, dimensions, text, and/or surface geometry) are accounted for in their translated media.

Objective evidence validating the Suppliers' translation process and results of the verification must be retained by the Supplier according to [section 17.3](#).

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## 11. Supplier Production Part Approval Process Requirements

The output of APQP confirming that the production process has demonstrated the potential to produce products that consistently fulfill all requirements while operating at the customer demand rate.

Unless otherwise stipulated in the contracts entered into with Liliium, the Supplier shall perform PPAP according to AS/EN/SJAC 9145.

If the Supplier has a new part introduction, change in the process, material, or relocation in production site he should immediately inform Liliium, review the changes and send an initial PPAP form submission to their responsible Supply Chain Quality Manager. The Supplier must use the form included in AS/EN/SJAC 9145 or equivalent to submit the specified contents of the PPAP.

The Supplier must identify the applicable PPAP elements, including specific requirements from Liliium. All elements in the [Table 2](#) are required unless the element isn't applicable to the activities performed by the Supplier.

The Supplier must also develop a PPAP file for the products requiring PPAP. These PPAP documents must be maintained, and accessibility ensured as required. If changes to the product and/or the process proceed, the Supplier must inform their Liliium Supplier Chain Quality Manager.

A formal PPAP approval is required for the shipments of parts to Liliium. The Supplier must wait until Liliium has reviewed the PPAP package and gives positive feedback. Product is not to be shipped unless Liliium approval is received in writing. Verbal approval is unacceptable!



## 11. Supplier Production Part Approval Process Requirements

The output of APQP confirming that the production process has demonstrated the potential to produce products that consistently fulfill all requirements while operating at the customer demand rate.

Table 2, List of Production Part Approval Process (PPAP) Element

Production Part Approval Process (PPAP) Elements	
1	Design Records
2	Design Risk Analysis (e.g., DFMEA) - only applicable to design organization
3	Process Flow Diagram
4	Process Failure Mode and Effects Analysis (PFMEA)
5	Control Plan
6	Measurement System Analysis (MSA)
7	Initial Process Capability Studies
8	Packaging, Preservation and Labelling Approvals
9	First Article Inspection Report (FAIR)
10	Customer PPAP Requirements
11	PPAP Approval Form (or equivalent)
Reference <a href="#">Appendix 2</a> , Description of PPAP Elements.	

## 12. Supplier Product / Process Key Characteristics Requirements

An attribute or feature whose variation has a significant effect on product fit, form, function, performance, service life, or producibility, that requires specific actions for the purpose of controlling variation.

Suppliers shall establish within their Quality Management System a system for the variation management for Key Characteristic according to AS/EN/JISQ 9103, Variation Management of Key Characteristics.

The Liliium "LP0SP00012TMP0A\_LP Product Part Key Characteristics Definition Sheet" (Reference [Appendix 6](#)) or equivalent digital system is the agreed upon template in which all identified product and/or process Key Characteristics are documented, and quality measurements results reported back to Liliium.

The Supplier shall ensure that the identified Product / Part Key Characteristics are incorporated into control plans, measured, and controlled at all levels of their supply chain i.e., Supplier, Supplier N-1, Supplier N-1, etc.

During series production, the Supplier shall demonstrate the capability of the process for all Product / Part Key Characteristic and manage and control each by using suitable techniques (e.g., statistical process control and digital control charts) throughout the entire production period.

When requested by Liliium, the Supplier shall complete section two of the "LP0SP00012TMP0A\_LP Product Part Key Characteristics Definition Sheet" (Reference [Appendix 6](#)) with, their own and their responsible Subtier suppliers, the in-process or final measurements associated with each Product / Part Key Characteristic and share digitally to Liliium. This includes the results of any statistical process controls and capability targets specified by Liliium.

## 13. Supplier Delegation Requirements

To comply with EASA Part 21 G, 21.A.139(a), Lilium has established a supplier delegation process that will ensure Supplier personnel performing inspections/test on behalf of the Lilium Quality PO meets or exceeds the competency requirements as set forth for Lilium Quality Inspectors.

Suppliers who meet Lilium entry requirements may be requested to have personnel from their Quality Organization delegated to verify parts, products, or services on behalf of Lilium Quality PO. The Supplier may be requested to select personnel (it is recommended that the Supplier selects more than one candidates) meeting the required competency and complete the "LPOCA00010TMP\_LP Competence Assessment Report Template" (Reference [Appendix 6](#)) with the "First Name", "Last Name", and "Department" fields for each potential candidate. Where "Date of Birth" is requested, the Supplier shall instead enter the candidate's unique company employee number or equivalent number that ensures traceability to the employee.

The Supplier must provide clear evidence that each candidate meets each specific requirement. This evidence can be training certificates, qualifications, on the job training and period of experience in determined roles.

Authority is granted as a Lilium Delegated Supplier Representative when the Supplier candidate has successfully proven their competencies in line with the competence matrix requirements.

The authority for each Delegated Supplier Representative is valid for a maximum of 24 months. Supplier delegation authority extends only to parts, products, or services listed on the Supplier's approved PPAP.

Lilium may communicate to the Delegated Supplier Representative the required quality measurements by filling out and transmitting Append, "LPOSP00017TMP0E\_LP Supplier Acceptance Report" (Reference [Appendix 6](#)) or by equivalent electronic media. Where Supplier Delegation is invoked the delegation authority shall extend only to the Delegated Supplier Representatives.

## 13. Supplier Delegation Requirements

To comply with EASA Part 21 G, 21.A.139(a), Lilium has established a supplier delegation process that will ensure Supplier personnel performing inspections/test on behalf of the Lilium Quality PO meets or exceeds the competency requirements as set forth for Lilium Quality Inspectors.

The Delegated Supplier Representative shall perform the necessary inspections and as evidence of conformity return the results within a signed copy of, “LP0SP00017TMP0E\_LP Supplier Acceptance Report” (Reference [Appendix 6](#)) along with the shipped goods or via an equivalent electronic method.

**ATTENTION:** The Delegated Supplier Representative signing the Supplier Acceptance Reports cannot also sign the CofC and / or EASA Form 1 for line items under the selected Purchase Order.

In the event a non-conformity is detected during a delegated inspection, the non-conformity details shall be reported to Lilium, and the parts, products or raw material are to be managed accordingly by the Supplier’s Quality Management System.

To assure the continuity of the delegation a renewal assessment must be carried out by Lilium to review the Supplier’s continued compliance to the entry requirements and the Delegated Supplier Representative’s competencies against the requirements stated in the Lilium Competency Matrix.

Prior to the Delegated Supplier Representative’s expiration date, the Delegated Supplier Representative may be requested to provide clear evidence that he/she continues to meet each specific requirement. This evidence can be training certificates, qualifications, on the job training and period of experience in determined roles

In case a Delegated Supplier Representative(s) is no longer working in the assigned role referenced on the last documented Competency Assessment, the Supplier must immediately inform Lilium, and delegation authorization will be revoked for that individual.

## 14. Supplier Concession Management

A Concession is a Design Organization approval with a unique reference number giving acceptance for use or release of an item that shows a deviation to the specified design data.

A Concession request only applies to unintentional deviations on items that can be identified by a part number where a 100% recovery to the specified design data from a technical and / or economic point of view cannot be achieved but could be conceded and approved under requirements provided by the Lilium Design Organization.

The Supplier is responsible for raising a “Request for Concession” as a consequence of an identified non-conforming item by using the defined Concession form (or a Lilium designated electronic platform). See “LPOCP00012TMP0A\_LP Concession Form” (Reference [Appendix 6](#)).

To secure adequate processing time in terms of Lilium Design Organization acceptance / rejection of the Concession request and to describe the deviation between the non-conforming item and the specified design data, the information listed below must be provided within the header and in the “Deviation description to specified design data” field of the Concession form:

- Detailed deviation description on the non-conformity
- Part number and part serial number (if applicable)
- Design drawing number
- Part description
- Assy serial number / manufacturer serial number (if applicable)
- Design drawing section / pictures with detailed measurements

When it is necessary to provide additional details on the non-conforming item the Supplier shall use the Concession continuation sheet. The affected page number of the additional continuation sheets need to be referred to within in the “Deviation description to specified design data” field.

The Supplier must forward the Concession request for further assessment and disposition to Lilium Supply Chain Quality. Lilium Supply Chain Quality will return the Concession back to the Supplier and delivery of the affected items is released ONLY if the Concession is approved and accepted.

## 14. Supplier Concession Management

A Concession is a Design Organization approval with a unique reference number giving acceptance for use or release of an item that shows a deviation to the specified design data.

Upon receipt of an approved Concession, the Supplier must act according to the Concession disposition and temporary suffix.

Temporary Suffix	Action Description
QI	Issue a non-conformance record to execute the required inspection.
RTC	Issue and execute a production work order according to the Concession rework disposition.
I	Identify the manufacturing data issued to the affected items in the Concession and implement a quality inspection at the interface.

The Supplier must mark, using marking requirements as specified on the Technical Data, the approved Concession Number on the affected items and record the Concession Number on the certification documentation (e.g., Certificate of Conformity, EASA Form1) for the affected items.

Where a “RTC” suffix is noted on the approved Concession, the Supplier must provide a statement on the Certificate of Conformity confirming that the Concession disposition has been executed on the affected items within their production system.

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## 15. Supplier Certificate of Conformity Requirements

A document issued by the supplier to confirm that the delivered items fulfill the relevant specification, applicable design data (e.g., drawing) and purchase order requirements.

The Supplier must supply with each order shipped to Lilium a Certificate of Conformity (CofC) that confirms that the delivered item(s) fulfill the relevant specification, applicable design data (e.g., drawing) and Purchase Order requirements.

To standardize the CofC and ensure Suppliers are consequently meeting CofC content, this section also provides guidance material and a template that may be used by Lilium Suppliers to submit CofCs to Lilium.

Suppliers may use and submit their CofC by using the form in [Appendix 3](#), “LP0QS00003TMP0A\_LP Standard CofC Template for Suppliers” according to the below instructions and [Appendix 4](#) guidelines:

- The CofC form is not a fixed template, the width and length of the boxes may change based on data input.
- There can be multiple items listed on a CofC. In case multiple items are from different Purchase Orders, the link must be made between each of the different items and the corresponding PO.

- Check block #1 for the appropriate page numbering, i.e., 1/1, 1/2, 2/2 etc.
- If a block is not applicable the space must be completed by entering “N/A”.
- When submitting a non-conformance (e.g., Concession), the Supplier must also provide reference to the Lilium acknowledgement in the Block 13.
- The Supplier’s Quality Management System shall ensure that only authorized personnel can initiate, sign and issue CofC’s and provide traceability to that person and to the relevant skills and competences (training performed, experience in the conformity attestation process and Lilium requirements, etc.). The Supplier personnel authorized to initiate, sign and issue CofC’s should, in particular, be aware of their level of responsibilities and impact of possible mistakes and/or fraudulent actions.

## 15. Supplier Certificate of Conformity Requirements

A document issued by the supplier to confirm that the delivered items fulfill the relevant specification, applicable design data (e.g., drawing) and purchase order requirements.

- Electronically generated CofCs are acceptable, provided they are compliant with all other appropriate elements of this document, in particular, verification that only authorized personnel can validate a CofC in the corresponding IT tool. An electronic representation of that person's signature may also be shown but is not mandatory.
- Copies of the CofC must be retained according to [section 17.3](#) in their original paper format or in a secure database, provided that the database contains all of the information required on the CofC and they are filled and secured in line with Lilium and regulatory requirements (e.g., double archiving, storage duration, protection against fire, water, etc.).

**ATTENTION:** Suppliers that opt to use their own CofC format must ensure the minimum content as specified in [Appendix 4](#) is present on the CofCs submitted to Lilium.

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## 16. Supplier Accompanying Documentation Requirements

Each order shipped to Lilium must be accompanied (or transmitted to Lilium electronically) by documents containing a declaration that the individual item was produced under the terms of the contract and according to Table 3.

**ATTENTION:** For Production Organization Approval Holders or equivalent, the prevailing agreements such as, for instance, procurement contracts shall determine whether a Form 1 (F1) or CofC (CC) shall accompany each shipment.

Table 3, Accompanying Documentation Requirements

Supplier	Build-to-Print / Design & Build Item	Shelf-life, Time Sensitive Item or Material (Note 1, 2)	Standard Part or Material	COTS	Service Provider
Production Organization Approval Holder or equivalent	F1, DN	(F1 or CC), DN	(F1 or CC), DN	(F1 or CC), DN	CC, DN
Non-Production Organization Approval Holder	CC, DN, SR	CC, DN	DC	DC	CC, DN
International Suppliers located outside of the European Union	CC, CI, DN, SR	CC, CI, DC	CI, DC	CI, DC	CC, DN
Distributors	Not Applicable	DT	DT	DT	Not Applicable
International Distributors located outside of the European Union	Not Applicable	CI, DT	CI, DT	CI, DT	Not Applicable

CC Certificate of Conformity (CofC) and/or any agreed upon inspection and/or test reports

CI Commercial Invoice

F1 EASA Form 1 or equivalent

DC Delivery Note with conformity statement

DN Delivery Note

DT Delivery Note with information showing traceability to the original source and/or attachments confirming original manufacturers and lot numbers

SR Supplier Acceptance Report (Note 3)

### NOTES:

1 - For shelf-life parts the supplier must supply documentation indicating the current status of the item, including items listed in Notes 2.

2 - For time-controlled parts the Supplier must list hours, cycles, and/or days since last service.

3 - In case Supplier is delegated according to [section 13](#)

## 17. Supplier Quality Assurance Requirements

These Quality Assurance Requirements set forth the determination of the technical and administrative conditions and of the interactive processes that are necessary between Lilium and Supplier in order to achieve the desired level of quality.

These Quality Assurance Requirements describe the minimum requirements applying to the Quality Management System of the Supplier in respect of quality assurance. In particular, these Quality Assurance Requirements define special requirements applying to the manufacturing process.

### 17.1 General Supplier Quality Assurance Requirements

#### 17.1.1 Scope and Subject of the Quality Assurance Requirements

These Quality Assurance Requirements are set forth by Lilium, for the purposes of protecting its own interests and the interests of its group companies within the meaning of sections 15 et seq. of the German Stock Corporation Act (Aktiengesetz, AktG).

These Quality Assurance Requirements and referenced Aerospace Standards regulate the requirements applying to the quality of any and all development services and/or products manufactured and/or delivered for the use of Lilium unless the scope of these requirements is restricted expressly to certain services and/or products.

Certain provisions of these Quality Assurance Requirements shall not apply if found to be conflicting with the provisions of prevailing agreements such as, for instance, procurement contracts.

#### 17.1.2 Subtier Supplier Quality Assurance

Supplier shall obligate its Subtier suppliers to comply with the duties and obligations upon it according to these quality requirements. In the event of Supplier being unable to enforce compliance with these obligations by a Subtier supplier, Lilium shall be informed by Supplier, in order to find an amicable solution.

Lilium may demand from the Supplier documentary proof of the effectiveness of the Quality System of any Subtier supplier providing products and components destined for Lilium that has been contracted by Supplier, and/or that other suitable measures have been implemented to assure the quality of items bought by Supplier.

## 17. Supplier Quality Assurance Requirements

These Quality Assurance Requirements set forth the determination of the technical and administrative conditions and of the interactive processes that are necessary between Liliium and Supplier in order to achieve the desired level of quality.

### 17.1.3 Audit (on Supplier's Premises)

Liliium shall be entitled to perform audits in order to establish whether Supplier's quality assurance measures appear capable of ensuring conformance with Liliium's requirements. Liliium may exercise its right to audit twice a year and in the event of a justified suspicion of a violation of the agreed quality or these Quality Assurance Requirements. Such audit, which shall be agreed prior to the scheduled performance, may take the form of a quality system, manufacturing process, product assessment, or Special Process audit as per Liliium directives. Audits performed by registered certification companies and/ or authorities shall be considered in respect thereof. Reasonable restrictions made by Supplier to protect its business secrets shall be respected.

In the event of quality concerns arising because of products and/or services supplied by Subtier suppliers, Supplier shall ensure that, after due notice, Liliium is granted access for (through the Supplier) auditing purposes to Subtier suppliers involved in the manufacture of the product in question; however, the above shall apply only in conjunction with products and components destined for Liliium.

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## 17. Supplier Quality Assurance Requirements

These Quality Assurance Requirements set forth the determination of the technical and administrative conditions and of the interactive processes that are necessary between Liliium and Supplier in order to achieve the desired level of quality.

### 17.2 Product Lifecycle

#### 17.2.1 New Product Introduction, Planning

Whenever there is a New Product Introduction (NPI) in Liliium's order directed to the Supplier, the Supplier is obliged to apply Advanced Product Quality Planning (APQP) project management techniques from the planning stage and to inform Liliium upon request about the progress of the project and deliverables at agreed upon intervals. The requirements specification, activities (elements), deliverables, and APQP project plan shall be agreed between both, Supplier and Liliium in written form (according to AS/EN/SJAC 9145).

Any technical documentation required to support the development of the series production, such as specifications, drawings, parts lists, CAD data, shall be reviewed by Supplier upon receipt with regard to completeness and lack of contradictions in general and in respect of the special purpose of its intended use. Supplier shall inform Liliium about any defects detected in such process. Liliium, in turn, shall ensure that any specifications, drawings, parts lists, and CAD data are made available to Supplier promptly, completely, and free from contradictions.

During the product and process design and development phases, both, Supplier and Liliium shall employ suitable preventive quality planning methods such as, for instance:

- Design Risk Analysis,
- Process Flow Diagram,
- Process Failure Mode and Effects Analysis,
- Control Plan,
- Measurement System Analysis, and
- Initial Process Capability Studies, etc.

Past experiences (process cycles, process data, capability studies, etc.) from similar projects shall also be given consideration (according to AS/EN/SJAC 9145).

Manufacturing and testing conditions applying to prototypes or initial production parts during product and process validation phase shall be agreed between Liliium and Supplier and be documented. It is the objective to manufacture the parts under conditions which are as close to those of series production as possible.

## 17. Supplier Quality Assurance Requirements

These Quality Assurance Requirements set forth the determination of the technical and administrative conditions and of the interactive processes that are necessary between Lilium and Supplier in order to achieve the desired level of quality.

In respect of known – regulated or agreed – functionally relevant characteristics, Supplier shall perform analyses of the manufacturing lines as well as the inspection equipment and document those. Whenever any defined capability variables are not accomplished, Supplier shall either optimize its systems or perform suitable product inspections in order to preclude defective deliveries (according to AS/EN/SJAC 9103).

Before the start of series production, Lilium may inspect the product to the requisite extent before the start of series production and grant Supplier a release for its manufacture under certain conditions, if necessary (according to AS/EN/SJAC 9145, AS/EN/SJAC 9102, AS/EN/SJAC 9115).

Upon production product and process validation the initial preliminary process capability index (Ppk) as well as the continuous process capability index (Cpk) shall be specified for all agreed characteristics (according to AS/EN/SJAC 9103).

### 17.2.2 Initial Production Run, Release

Before the start of series production, Supplier shall submit to Lilium in accordance with the agreed time schedule, the respective initial production run of the product and associated First Article Inspection Reports (FAIR) for the purpose of inspection and release (according to AS/EN/SJAC 9145, AS/EN/SJAC 9102, AS/EN/SJAC 9115).

Release of initial production run by Lilium shall not release Supplier of its responsibility for product quality during series production.

Release of initial production run by Lilium is a purely technical process and is not to be equated with a supply order.

## 17. Supplier Quality Assurance Requirements

These Quality Assurance Requirements set forth the determination of the technical and administrative conditions and of the interactive processes that are necessary between Liliium and Supplier in order to achieve the desired level of quality.

### 17.2.3 Series Production, Traceability, Notification of Defects, Labeling

Supplier shall only deliver series products to Liliium that have been released for delivery by a production part approval process pursuant to PPAP (according to AS/EN/SJAC 9145) or by a Concession.

In the absence of specific requirements of Liliium, the Supplier is obliged to ensure the traceability of the items supplied.

In the event of a defect being detected, the traceability system shall be good enough to permit tracing the number of potentially defective parts/products to the smallest possible volume. Liliium will provide Supplier with any data required for traceability purposes (according to AS/EN/SJAC 9131).

In the event any process disruptions or quality deviances occur, the causes shall be analyzed, corrective actions shall be initiated, and their effectiveness shall be reviewed.

If it becomes necessary under exceptional circumstances to deliver nonconforming products to Liliium, a Concession shall be obtained prior thereto ([section 14](#)). Similarly, Liliium shall be informed about any later detected Quality Escapes. The Supplier's report on Quality Escapes and/or the feedback to Liliium's technical non-conformity reports shall contain the batch and/or serial numbers affected, hence the Liliium Jet(s) in service / production impacted (according to ARP/EN/SJAC 9136, AS/EN/SJAC 9131).

Labelling of products, parts, and packages shall conform to the requirements agreed with Liliium. Supplier shall ensure that the labels of packaged products remain legible during transport and storage. Deviations from the existing labelling requirements are only valid if agreed in writing between Supplier and Liliium.

Supplier shall ensure that products are delivered only in suitable containers in order to avoid damages or quality losses (e.g., contamination, chemical reactions). Liliium shall be informed about special storage conditions (according to AS/EN/SJAC 9145).

## 17. Supplier Quality Assurance Requirements

These Quality Assurance Requirements set forth the determination of the technical and administrative conditions and of the interactive processes that are necessary between Liliium and Supplier in order to achieve the desired level of quality.

### 17.2.4 Inspections, Capability, Corrective Action

Supplier shall be responsible for implementing inspections in order to comply with agreed specifications and targets.

In the absence of agreements to the contrary, Supplier shall include in its own Quality Management System any production and inspection equipment, including but not limited to tools and rigs, provided by Liliium as part of the normal purchasing process, to be handled like Supplier's own production and inspection equipment.

If Supplier cannot fulfil the targets (e.g., regarding quality characteristics, deadlines, supply volumes), Supplier shall inform Liliium about such fact and the details in respect thereof. In order to find a quick solution, Supplier shall be obligated to disclose all relevant data and facts.

During series production, Supplier shall demonstrate the capability of the process for all characteristics that are functionally relevant and have to be documented by using suitable techniques (e.g., statistical process control or digital control charts) throughout the entire production period.

In the event of process capability shortfalls, the quality shall be assured through suitable inspection methods; the production process shall be optimized in order to bring the required capability up to the desired level (according to AS/EN/SJAC 9103, AS/EN/SJAC 9138).

In the event Supplier observes an increase of discrepancies between quality targets and actual quality performance, Supplier shall inform Liliium without delay and describe any corrective action contemplated (according to ARP/EN/SJAC 9136).

Upon receipt, Liliium shall inspect Supplier's products in respect of compliance with quantity, identity, visible damages, as well agreed technical requirements.

## 17. Supplier Quality Assurance Requirements

These Quality Assurance Requirements set forth the determination of the technical and administrative conditions and of the interactive processes that are necessary between Lilium and Supplier in order to achieve the desired level of quality.

Unless otherwise stipulated in the contracts entered into with Lilium, any defects detected in the ordinary course of business will be reported by Lilium to Supplier without delay. If feasible in the ordinary course of business, Lilium will either inspect assemblies manufactured with parts provided by Supplier prior to the next manufacturing segment or, alternatively, inspect the end product that incorporates the assemblies.

In the absence of agreements to the contrary, defective parts will be shipped to Supplier for analysis. Should a dispute arise, Lilium and Supplier will conduct a joint analysis. In the event of defective deliveries, Supplier shall take corrective action immediately (according to ARP/EN/SJAC 9136).

Lilium may delegate inspection authority to the Supplier, at which point an approved delegated supplier representative shall be notified and shall conduct the required inspections on behalf of the Lilium.

### 17.2.5 Foreign Object and Debris Control

The Supplier shall establish and maintain an effective FOD prevention program that involves using a process approach and risk-based thinking to proactively address the events (conditions and actions) leading to FOD (according to AS/EN/SJAC 9146).

### 17.3 Document Retention, Changes

Documentation associated with manufacturing, quality, tooling, and equipment shall be kept on file in a special archive for a period of aircraft operational life plus 3 years. Upon request the Supplier shall allow Lilium to inspect such documents.

Before launching any changes in respect of production processes, materials or parts of Subtier suppliers, relocation of manufacturing sites, further changes to procedures or equipment for product testing, or of any other quality assurance measures, Supplier shall inform Lilium in time to enable Lilium to review the changes contemplated with regard to any possible detrimental effects and to assess whether the consent to the change can be given ([section 11](#)). This obligation to notify Lilium is set forth in the aforementioned PPAP guidelines (according to AS/EN/SJAC 9145).



## 17. Supplier Quality Assurance Requirements

These Quality Assurance Requirements set forth the determination of the technical and administrative conditions and of the interactive processes that are necessary between Liliium and Supplier in order to achieve the desired level of quality.

Without the prior written consent of Liliium, which may be given under certain circumstances only following production part approval process ([section 11](#)), Supplier shall not implement any changes relating to production processes, production locations, materials, and Subtier suppliers of components or products. Liliium may only refuse its consent if such change has possibly a detrimental effect on Liliium.

Any and all modifications of the product and/or the processes shall be documented. Such relevant documents shall be retained by the Supplier in a manner acceptable to Liliium.

Any and all product changes as well as any process changes that are of relevance to the item shall be documented in the product history.

### 17.4 Liability

Supplier will not be relieved of its liability for any warranty or damage claims of Liliium due to defective deliveries by the fact that quality targets and measures as well as intervention limits (disruptions, statistical ppm targets in the meaning of a statistical factor) are set forth in these Quality Management Requirements. Rather, these Quality Management Requirements define the obligations arising from the supply contract and the resulting warranty right.

## 18. Appendix

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## Appendix 1

### Supplier Quality

### Management System

### Requirements Matrix

To demonstrate compliance with the requirements of Part 21 Subpart G, specific sub-sections of AS/EN/JISQ 9100 chapters have been mapped to Part 21 Subpart G, GM 21.A.139(b)(1). These chapters are denoted by a “\*”.

9100:2016 Clause		A-Type	B-Type	C-Type	E-Type
<b>4</b>	<b>Context of the organization</b>				
4.1	Understanding the organization and its context	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
4.2	Understanding the needs and expectations of interested parties	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
4.3	Determining the scope of the quality management system	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
4.4	Quality management system and its processes	EASA Part-21:2012	9100:2016	<b>9100:2016</b>	9100:2016
<b>5</b>	<b>Leadership</b>				
5.1	Leadership and commitment				
5.1.1	General	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
5.1.2	Customer focus	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
5.2	Policy	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
5.2.1	Establishing the Quality Policy	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
5.2.2	Communicating the Quality Policy	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
5.3	Organizational roles, responsibilities and authorities	EASA Part-21:2012	9100:2016	<b>9100:2016</b>	9100:2016
<b>6</b>	<b>Planning</b>				
6.1	Actions to address risks and opportunities				
6.2	Quality objectives and planning to achieve them	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016

## Appendix 1

### Supplier Quality

### Management System

### Requirements Matrix

To demonstrate compliance with the requirements of Part 21 Subpart G, specific sub-sections of AS/EN/JISQ 9100 chapters have been mapped to Part 21 Subpart G, GM 21.A.139(b)(1). These chapters are denoted by a “\*”.

9100:2016 Clause		A-Type	B-Type	C-Type	E-Type
6.3	Planning of changes	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
<b>7</b>	<b>Support</b>				
7.1	Resources				
7.1.1	General	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
7.1.2	People	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
7.1.3	Infrastructure	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
7.1.4	Environment for the operation of processes	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
7.1.5	Monitoring and measuring resources				
7.1.5.1	General	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
7.1.5.2	Measurement traceability	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
7.1.6	Organizational knowledge	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
7.2	Competence	EASA Part-21:2012	9100:2016*	<b>9100:2016*</b>	9100:2016*
7.3	Awareness	EASA Part-21:2012	9100:2016	<b>9100:2016</b>	9100:2016
7.4	Communication	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016

## Appendix 1

### Supplier Quality

### Management System

### Requirements Matrix

To demonstrate compliance with the requirements of Part 21 Subpart G, specific sub-sections of AS/EN/JISQ 9100 chapters have been mapped to Part 21 Subpart G, GM 21.A.139(b)(1). These chapters are denoted by a “\*”.

9100:2016 Clause		A-Type	B-Type	C-Type	E-Type
7.5	Documented information				
7.5.1	General	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
7.5.2	Creating and updating	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
7.5.3	Control of documented Information	EASA Part-21:2012	9100:2016	<b>9100:2016</b>	9100:2016
<b>8</b>	<b>Operation</b>				
8.1	Operational planning and control	EASA Part-21:2012	9100:2016*	<b>9100:2016*</b>	9100:2016*
8.1.1	Operation risk management	EASA Part-21:2012	9100:2016	<b>9100:2016</b>	9100:2016
8.1.2	Configuration management	EASA Part-21:2012	9100:2016*	<b>9100:2016*</b>	9100:2016*
8.1.3	Product safety	EASA Part-21:2012	9100:2016*	<b>9100:2016*</b>	9100:2016*
8.1.4	Prevention of counterfeit products	EASA Part-21:2012	9100:2016*	<b>9100:2016*</b>	9100:2016*
8.2	Requirements for products and services				
8.2.1	Customer communication	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
8.2.2	Determining the requirements for products and services	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
8.2.3	Review the requirements for products and services	EASA Part-21:2012	9100:2016*	<b>9100:2016*</b>	9100:2016*
8.2.4	Changes to requirements for products and services	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016

## Appendix 1

### Supplier Quality

### Management System

### Requirements Matrix

To demonstrate compliance with the requirements of Part 21 Subpart G, specific sub-sections of AS/EN/JISQ 9100 chapters have been mapped to Part 21 Subpart G, GM 21.A.139(b)(1). These chapters are denoted by a “\*”.

9100:2016 Clause	A-Type	B-Type	C-Type	E-Type
8.3 Design and development of products and services				
8.3.1 General	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
8.3.2 Design and development planning	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
8.3.3 Design and development inputs	EASA Part-21:2012	9100:2016	<b>9100:2016</b>	9100:2016
8.3.4 Design and development controls	EASA Part-21:2012	9100:2016	<b>9100:2016</b>	9100:2016
8.3.5 Design and development outputs	EASA Part-21:2012	9100:2016	<b>9100:2016</b>	9100:2016
8.3.6 Design and development changes	EASA Part-21:2012	9100:2016	<b>9100:2016</b>	9100:2016
8.4 Control of externally provided processes, products and services				
8.4.1 General	EASA Part-21:2012	9100:2016	<b>9100:2016*</b>	9100:2016
8.4.2 Type and extent of control	EASA Part-21:2012	9100:2016	<b>9100:2016*</b>	9100:2016
8.4.3 Information for external providers	EASA Part-21:2012	9100:2016	<b>9100:2016*</b>	9100:2016
8.5 Production and service provision				
8.5.1 Control of production and service provision	EASA Part-21:2012	9100:2016	<b>9100:2016</b>	9100:2016
8.5.1.1 Control of equipment, tools and software programs	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
8.5.1.2 Validation and control of special processes	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016

## Appendix 1

### Supplier Quality

### Management System

### Requirements Matrix

To demonstrate compliance with the requirements of Part 21 Subpart G, specific sub-sections of AS/EN/JISQ 9100 chapters have been mapped to Part 21 Subpart G, GM 21.A.139(b)(1). These chapters are denoted by a “\*”.

9100:2016 Clause	A-Type	B-Type	C-Type	E-Type
8.5.1.3 Production process verification	EASA Part-21:2012	9100:2016	<b>9100:2016</b>	9100:2016
8.5.2 Identification and traceability	EASA Part-21:2012	9100:2016*	<b>9100:2016*</b>	9100:2016*
8.5.3 Property belonging to customers or external providers	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
8.5.4 Preservation	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
8.5.5 Post-delivery activities	EASA Part-21:2012	9100:2016*	<b>9100:2016*</b>	9100:2016*
8.5.6 Control of changes	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
8.6 Release of products and services	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
8.7 Control of nonconforming outputs	EASA Part-21:2012	9100:2016*	<b>9100:2016*</b>	9100:2016*
<b>9 Performance evaluation</b>				
9.1 Monitoring, measurement, analysis and evaluation				
9.1.1 General	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
9.1.2 Customer satisfaction	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
9.1.3 Analysis and evaluation	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
9.2 Internal audit	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016

## Appendix 1

### Supplier Quality

### Management System

### Requirements Matrix

To demonstrate compliance with the requirements of Part 21 Subpart G, specific sub-sections of AS/EN/JISQ 9100 chapters have been mapped to Part 21 Subpart G, GM 21.A.139(b)(1). These chapters are denoted by a “\*”.

9100:2016 Clause	A-Type	B-Type	C-Type	E-Type
9.3 Management review				
9.3.1 General	EASA Part-21:2012	9100:2016	<b>9100:2016</b>	9100:2016
9.3.2 Management review inputs	EASA Part-21:2012	9100:2016	<b>9100:2016</b>	9100:2016
9.3.3 Management review outputs	EASA Part-21:2012	9100:2016	<b>9100:2016</b>	9100:2016
<b>10 Improvement</b>				
10.1 General	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
10.2 Nonconformity and corrective action	EASA Part-21:2012	9100:2016	<b>9100:2016</b>	9100:2016
10.3 Continual Improvement	EASA Part-21:2012	9100:2016	ISO 9001:2015	9100:2016
* Reference Regulation (EU) No 748/2012 GM 21.A.139(b)(1)(2)				



## Appendix 2

### Description of PPAP Elements

The output of APQP confirming that the production process has demonstrated the potential to produce products that consistently fulfill all requirements while operating at the customer demand rate.

PPAP Elements			
Element	What is it?	Objective or Purpose	When to use it
1	Design Records	<p>A collection of the design documents typically including:</p> <ul style="list-style-type: none"> <li>• CAD/CAM Math Data</li> <li>• Part Drawings</li> <li>• Specifications</li> <li>• List of all characteristics and requirements</li> <li>• If Liliium is responsible for designing, this is a copy of Liliium drawing that is sent together with the Purchase Order (PO).</li> <li>• If supplier is responsible for designing this is a released drawing in supplier's release system.</li> </ul>	<p>Verification that the supplier has designed the product and process according to Liliium &amp; Regulatory Requirements</p> <p>Anytime a product or service is being designed or redesigned Design Records must be confirmed early in APQP Phase 2/3 and be updated with any changes prior to submitting PPAP</p>

## Appendix 2

### Description of PPAP Elements

The output of APQP confirming that the production process has demonstrated the potential to produce products that consistently fulfill all requirements while operating at the customer demand rate.

PPAP Elements			
Element	What is it?	Objective or Purpose	When to use it
2	Design Risk Analysis	<p>A structured approach used to identify and prioritize potential risks in a new or changed design</p> <ul style="list-style-type: none"> <li>• Per 9145 the DFMEA methodology can be used as a record of the DRA</li> <li>• Identifies potential failure modes, the resulting effects, and prioritizes actions based on the expected severity, likelihood of occurrence, and ability to detect the failure mode during design</li> <li>• Enables collaborative identification of risk and associated risk mitigation actions</li> </ul>	<ul style="list-style-type: none"> <li>• Started during initial design, updated as the design matures and throughout the product lifecycle as the product is updated</li> <li>• As an input to the next product development cycle</li> </ul>
3	Process Flow Diagram	<p>Representation of sequential steps of a process</p> <ul style="list-style-type: none"> <li>• To help “see” the real process</li> <li>• To understand the following characteristics of a process: <ul style="list-style-type: none"> <li>• Step-by-step process linkage</li> <li>• Inputs and outputs of each process step</li> <li>• Offline activities (measurement, inspection, handling)</li> <li>• Planned vs. non-planned rework</li> </ul> </li> <li>• Assist in identification of needed resources (equipment, tooling, facilities people)</li> </ul>	<ul style="list-style-type: none"> <li>• Once the preliminary design is released</li> <li>• Prior to initiating the PFMEA</li> <li>• To evaluate changes to the process</li> </ul>

## Appendix 2

### Description of PPAP Elements

The output of APQP confirming that the production process has demonstrated the potential to produce products that consistently fulfill all requirements while operating at the customer demand rate.

PPAP Elements				
Element	What is it?	Objective or Purpose	When to use it	
4	PFMEA	<ul style="list-style-type: none"> <li>• A structured method for identifying all possible failures &amp; impacts of the process under review</li> <li>• “Failure modes” is the description of the non-conformance to the requirements</li> <li>• “Effects analysis” refers to studying the consequences of those failures</li> <li>• Failure modes are prioritized according to how serious their consequences, how frequently they occur, and how easily they can be detected</li> <li>• Reaction plan to eliminate or reduce failure modes with high severity, reduce occurrence, and improve detection</li> </ul>	<ul style="list-style-type: none"> <li>• Identify potential product related process failure modes</li> <li>• Assess potential effect of the failures</li> <li>• Identify potential cause(s)</li> <li>• Plan for the prevention, mitigation and control of failures</li> <li>• Repository for Lessons Learned</li> </ul>	<ul style="list-style-type: none"> <li>• When launching a new product or service</li> <li>• Design and development of new manufacturing process</li> <li>• To improve an existing process</li> </ul>

## Appendix 2

### Description of PPAP Elements

The output of APQP confirming that the production process has demonstrated the potential to produce products that consistently fulfill all requirements while operating at the customer demand rate.

PPAP Elements				
Element	What is it?	Objective or Purpose	When to use it	
5	Control Plan	<ul style="list-style-type: none"> <li>• 9145: A documented description linking manufacturing process steps to key inspection and control activities. The intent of a control plan is to control the design characteristics and the process variables to ensure product quality.</li> <li>• It is a document that describes the measurement methods, tools and procedures required at each significant phase of a process to control critical inputs and assure product that will conform to pre-determined requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of new process</li> <li>• After risks identified in PFMEA have been mitigated</li> <li>• Following a process change</li> <li>• Evaluating processes with non-conformances after corrective action</li> </ul>	<ul style="list-style-type: none"> <li>• Monitors all product and process Key Characteristics (KCs) and Critical Items (CIs) defined by the customer and organization.</li> <li>• Manages process variation (input) to reduce product characteristic variation (output).</li> <li>• Defines reaction to out-of-control situations, and ensures process improvements are sustained throughout the product lifecycle</li> </ul>
6	MSA	<p>A MSA is a statistical tool used to determine if a measurement system is capable of accurate/precise measurements</p>	<ul style="list-style-type: none"> <li>• Quantifies the variability/error added by the measurement system</li> <li>• To discover areas where:</li> <li>• Training is needed</li> <li>• Procedures are lacking</li> <li>• Standards are not defined</li> </ul>	<ul style="list-style-type: none"> <li>• When trying to understand the effectiveness of your measurement system on its ability to measure both inputs and outputs of a process</li> <li>• Any new or modified process in order to ensure the quality of the data</li> </ul>

## Appendix 2

### Description of PPAP Elements

The output of APQP confirming that the production process has demonstrated the potential to produce products that consistently fulfill all requirements while operating at the customer demand rate.

PPAP Elements			
Element	What is it?	Objective or Purpose	When to use it
7	Initial Process Capability Studies	A collection of dimensional results on product and process Key Characteristics identified in the control plan.	Initial process capability studies demonstrate that the combination of people, machine, methods, material, and measurements have the potential to produce product that will consistently meet the design requirements.
8	Packing, Preservation & Labeling Approvals	Packaging and Labelling approvals are used to validate the process of delivering product and material to Lilium	<ul style="list-style-type: none"> <li>• To ensure that product or material is not physically damaged, nor will the packaging degrade in performance through the normal course of transportation, delivery, and storage.</li> <li>• Labelling approval is used to ensure that the correct product or material is received by Lilium</li> </ul>

## Appendix 2

### Description of PPAP Elements

The output of APQP confirming that the production process has demonstrated the potential to produce products that consistently fulfill all requirements while operating at the customer demand rate.

PPAP Elements			
Element	What is it?	Objective or Purpose	When to use it
9	FAIR	First Article Inspection is a complete, independent, and documented physical and functional inspection process to verify that prescribed production processes have produced an acceptable item as specified by engineering drawings, purchase order, engineering specifications, and/or other applicable design documents. This element must comply with the requirements of Aerospace Standard 9102 when contractually required by Lilium.	The purpose of the FAI is to provide objective evidence, based on an assessment of the first production article produced during the initial production run, that all engineering, design, and specification requirements are correctly understood, accounted for, recorded, verified, and fulfilled.
10	Customer Specific Requirements	Lilium may specify activities and/or artifacts that exceed those required in the International Aerospace Standard 9145. These items are referred to as Lilium Specific (PPAP) Requirements in the PPAP submission.	To ensure compliance to any addition Lilium Requirements
			<ul style="list-style-type: none"> <li>• FAI planning should begin in the early APQP phases to ensure that all Lilium requirements are clearly understood and accounted.</li> <li>• The FAI submission shall be completed using the initial production part produced during the first production run.</li> </ul>
			<ul style="list-style-type: none"> <li>• Specific Requirements by Lilium should be identified during the project-planning phase, with timing established and assigned to the appropriate functional organization.</li> <li>• Evidence is submitted with the PPAP as defined by Lilium in Phase 4.</li> </ul>

## Appendix 2

### Description of PPAP Elements

The output of APQP confirming that the production process has demonstrated the potential to produce products that consistently fulfill all requirements while operating at the customer demand rate.

PPAP Elements				
Element	What is it?	Objective or Purpose	When to use it	
11	PPAP Approval Form	<ul style="list-style-type: none"><li>• The official record of part approval is 9145 Appendix D if not specified by Lilium</li><li>• May contain records of subtier PPAP approval status</li></ul>	<ul style="list-style-type: none"><li>• Phase 4 when submitting PPAP to Lilium</li><li>• When any design change in product or process is completed</li></ul>	<ul style="list-style-type: none"><li>• To record the status of all PPAP requirements</li><li>• Official record of the status of part approval, including subcomponents as required</li></ul>

## Appendix 3

LPOQS00003TMP0A, LP

### Standard CofC Template for Suppliers

A document issued by the supplier to confirm that the delivered items fulfill the relevant specification, applicable design data (e.g., drawing) and purchase order requirements.

<b>Corporate Logo</b> (optional)	<b><i>CERTIFICATE OF CONFORMITY</i></b>				1 Page of Pages
2 Certificate Number	3 Date	4 Supplier Name and Address	5 Customer Name and Address.	6 Purchase Order number	
7 Item Number	8 Quantity	9 Description	10 Revision	11 Traceability	12 Remarks
13 Conformity Details					
Certified that the products detailed have been manufactured / inspected / tested and conform in all respects to the relevant specifications, drawings and purchase order requirements.					
14 Name and Signature of person authorized to release products to customer.					

Rev. Date: 09.04.2021 LPOQS00003TMP0A, LP Standard CofC Template for Suppliers



## Appendix 4

### Guidelines for the Completion of the Certificate of Conformity

A document issued by the supplier to confirm that the delivered items fulfill the relevant specification, applicable design data (e.g., drawing) and purchase order requirements.

No.	Data Field Title	Description	Data	Data Type
1	Pages of Pages	Sheet number and total number of sheets	Numerals	Numeric
2	Certificate Number (optional)	Unique reference number assigned to Certificate of Conformity by Supplier	Numerals/letters	Alphanumeric
3	Date	Issue Date	Numerals/letters	Date
4	Supplier Name and Address	Supplier Name and Address	Numerals/letters	Alphanumeric
5	Customer Name and Address	Customer Name and Address	Numerals/letters	Alphanumeric
6	Purchase Order Number	Purchase Order Number	Numerals/letters	Alphanumeric
7	Item Number	Purchase Order Item Number	Numerals	Numeric
8	Quantity	Quantity of delivered goods	Numerals/letters	Alphanumeric
9	Description	Description of goods supplier, identified by same part number / material buying standard as referenced on the Purchase Order	Numerals/letters	Alphanumeric
10	Revision	Part or material revision as stated on the Purchase Order	Numerals/letters	Alphanumeric
11	Traceability	Serial / batch / lot / heat / cast numbers - as applicable to provide traceability	Numerals/letters	Alphanumeric
12	Remarks	Any additional remarks as related to the product	Numerals/letters	Alphanumeric

## Appendix 4

### Guidelines for the Completion of the Certificate of Conformity

A document issued by the supplier to confirm that the delivered items fulfill the relevant specification, applicable design data (e.g., drawing) and purchase order requirements.

No.	Data Field Title	Description	Data	Data Type
13	Conformity details	Optional statements as applicable: <ul style="list-style-type: none"><li>- Shelf-life expiry data</li><li>- Non-conformance numbers</li><li>- First Article Inspection</li><li>- Material Certifications</li><li>- Process Certifications</li><li>- Customer Approval Numbers</li><li>- Product category</li><li>- etc.</li></ul>	Numerals/letters	Alphanumeric
14	Name and signature of person authorized to release product to Customer	Statement confirming compliance to Customer Purchase Order requirements.	Digital signature	Alphanumeric

## Appendix 5

### Lilium Production Special Process List

A process that alters a part or assembly characteristic in a way that cannot be directly measured without destructive methods is treated as a Special Process.

Technology Domain		Special Process
1	Additive Manufacturing	Powder Bed Fusion (SLM, EBM) Direct Energy Deposition Selective Laser Sintering Stereolithography
2	Casting	High Pressure Die Casting Investment Casting Sand Casting
3	Chemical Processing and Coating	Cleaning Anodizing Chemical Conversion Coating Etching Mechanical Stripping Chemical Stripping Painting Electro Polishing Plating Bonding with organic and inorganic adhesives Thermal Spraying
4	Conventional Machining as Special Process	Abrasive Blasting Broaching Grinding Hole Making Milling Turning Tumbling

## Appendix 5

### Lilium Production Special Process List

A process that alters a part or assembly characteristic in a way that cannot be directly measured without destructive methods is treated as a Special Process.

Technology Domain		Special Process
5	Composite	Forming- Composite Lay Up Forming- Impregnation Forming- Liquid Resin Infusion Forming- Press Forming Forming- Multiaxial Laying Forming- Fiber Layout Forming- RTM Injection Forming-Laminate Making Forming-Filament Winding Heat Treatment-Composite Autoclave or oven Machining- Hole making, drilling on composite materials Storage
6	Electronics Assembly	Tempering (Drying) Soldering Electronic Components Bonding Material Lamination Harness Assembly PCB. Finishing PCB. Plating PCB. Drilling Varnishing and coating of electronic boards Parylene Coating
7	Forging	Die Forging Ring Rolling Forging of Bars Rolling of Bars

## Appendix 5

### Lilium Production Special Process List

A process that alters a part or assembly characteristic in a way that cannot be directly measured without destructive methods is treated as a Special Process.

Technology Domain		Special Process
8	Heat Treatment	Furnace Brazing Vacuum Brazing Carburizing Nitriding Hot Isostatic Pressing Induction Processes Sub-zero Heat Treatments Quenching Local heat treatment Stress Relieving Solution heat treating Normalizing Homogenizing Ageing Annealing
9	Joining	Brazing Welding (All) Adhesive joining
10	Materials Testing Labs	All
11	Measurement and Inspection	CMM Laser tracker Articulating Arms 3D Scanners Structured Light Scanning Capacitive Measurement

## Appendix 5

### Lilium Production Special Process List

A process that alters a part or assembly characteristic in a way that cannot be directly measured without destructive methods is treated as a Special Process.

Technology Domain		Special Process
12	Non-Conventional Machining	EDM Chemical Milling ECM Laser Cutting and drilling processes ECF (Electrochemical Drilling) High Pressure Water Jet Post Peen Material Removal
13	Non-Destructive Testing	Airflow Measurement Visual Inspection MPI Radiography (Manual, Computed, Computed Tomography) FPI Eddy Current Ultrasonic Testing Residual Stress Measurements
14	Non-Metallic Materials Manufacturing	Plastic Injection molding Urethane forming
15	Surface Enhancement	Plasma treatment Marking Peening Laser Conditioning

## Appendix 6

### Lilium Template and Form References

Contact your Lilium Supply Chain Quality Manager for the latest template.

Section	Template Reference / Number	Template Name	Location
<a href="#">6</a>	LP0SP00014TMP0E	LP Supplier Compliance Agreement	Latest Version Available Upon Request
<a href="#">8</a>	<a href="#">AS/EN/SJAC 9102</a>	First Article Inspection Report (Form 1, 2, 3)	<a href="#">IAQG Forms Library</a>
<a href="#">9</a>	LP0MP00020TMP0A	LP Special Process Certificate	Latest Version Available Upon Request
<a href="#">11</a>	<a href="#">AS/EN/SJAC 9145</a>	PPAP Approval Form	<a href="#">IAQG Forms Library</a>
<a href="#">12</a>	LP0SP00012TMP0A	LP Product Part Key Characteristics Definition Sheet	Latest Version Available Upon Request
<a href="#">13</a>	LP0CA00010TMP	LP Competence Assessment Report Template	Latest Version Available Upon Request
	LP0SP00017TMP0E	LP Supplier Acceptance Report	Latest Version Available Upon Request
<a href="#">14</a>	LP0CP00012TMP0A	LP Concession Form	Latest Version Available Upon Request
<a href="#">15</a>	LP0QS00003TMP0A	LP Standard CofC Template for Suppliers	Latest Version Available Upon Request or <a href="#">IAQG CofC Template</a>
<a href="#">7, 17</a>	LP0SP00019TMP0A ( <a href="#">ARP/EN/SJAC 9136</a> )	LP Supplier 9S Report	Latest Version Available Upon Request





— Help us build the future.