



FALCK-SCHMIDT Systems

SUPPLIER MANUAL

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FALCK-SCHMIDT Systems
Lahngade 92 DK-5000 Odense C
www.falck-schmidt.systems



Introduction

Dear valued supplier to FALCK-SCHMIDT Systems,

As a proud supplier to the best military forces in the world and as a dedicated partner in developing the most complex space technology ever seen, we are driven by an obligation to only deliver the best. We can only do so with the strongest possible supply chain – You!

In this document you will find our formal set of requirements for you as our supplier. In our purchase order to you, we will call out the applicable clause(s) from this manual. Upon acceptance of our purchase order, you will also have accepted the stated clauses.

Where a set of clauses are stated as for example: “Q100 (All)” in the purchase order. It means that all clauses in section Q100 applies to the specific purchase order.

F-SS has a sample based incoming inspection. Sample size and frequency depend on the characteristics, the severity of impact in case of failure, and past experience with our suppliers. You can help us and yourself, with lowering the cost of the supply chain, by only deliver products that meet or exceed the specified requirements.

We accept errors, but we demand honesty. We expect you to inform us if you have encountered problems that may impact products already delivered to F-SS. We also expect you to inform us of any potential delay at the earliest stage possible.

We encourage you to flow-down the ethical requirements from section Q300 to your sub-suppliers.

If you are in doubt of any of the called out requirements in the purchase order, please contact for verification

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Terms used in this document

Reasonable access – Includes access to all data, material and physical locations where products under a Government contract is designed, tested, received, stored, manufactured, assembled, disposed, or quarantined. It also includes access to interview employees that are involved in the process of products under a Government contract.

Sub-supplier – any supplier used by the Supplier to FALCK-SCHMIDT Systems.

Without any delay – means within 48 hours. Response time may exceed 48 hours due to weekends, holidays and special conditions and events, but shall under no circumstances exceed five calendar days. Where non-conforming product is delivered and the use of the product may result in severe injury or death the term *without any delay* – means *immediately* - only limited in time by communication technology limitations.

Abbreviations

DFAR – Defense Federal Acquisition Requirements

FAI – First Article Inspection

FAR – Federal Acquisition Requirements

FPI – First Piece Inspection

F-SS – FALCK-SCHMIDT Systems

HTC – Harmonized Tariff Codes

PO – Purchase Order

Q100 Quality Systems Requirements

Q101 Zero defect approach – Supplier must through its organization enforce a zero-defect approach for all products delivered to F-SS. Where sample plans are used, the acceptance level shall be zero. The supplier shall ensure that defects and arising delays are detected at the earliest stage possible as well as effectively eliminated in due time.

Q102 Claims handling – Supplier shall handle all claims issued by F-SS, in a timely and professional manner by providing the following information in writing to F-SS:

Within 48 hours – Acceptance of claim and description of any containment actions taken. Until root cause is determined all products in question may only be released for delivery with a 100% inspection report.

With 30 calendar days – Completed 8D Report (supplier format is accepted). The 8D report requires acceptance from F-SS.

Q103 Chemical Substances – Supplier shall comply with REACH-regulation 1907/2006/EG. Where applicable, the current safety data sheet shall be part of the delivery.

Q104 Counterfeit products – Supplier shall through its supply chain, to the practical extend possible; ensure that no counterfeit products are used in products delivered to F-SS. Supplier shall maintain records of purchase from non-OEM vendors. These records shall be available for inspections.

Q105 Quality Records – Supplier shall maintain the quality records that are obtained to prove conformity with process or product specifications. Such records shall be retained for not less than 5 years. Records shall be available to F-SS upon request.

Q106 Certification – Where Supplier holds an accredited certificate that covers the products or the processes of the products delivered to F-SS, Supplier must inform F-SS if the certificate expires or by other means becomes invalid.

Q107 Out-sourcing limitation – Supplier shall not sub-contract any work specified by F-SS without written pre-approval from F-SS.

Q108 Quality by sorting – Where quality acceptance is achieved through sorting, supplier shall only sort out products that do not comply with specifications from the manufactured batch. Selective sorting from the manufactured batch leaving out products other than products that does not comply with the specification is not allowed without written approval from F-SS.



Q109 Damaged or lost material – Supplier shall report all damaged or lost F-SS provided material, in writing without any delay.

Q110 Waivers – F-SS recognizes the need to on rare occasions to accept the delivery of products that does not conform will all specified requirements. However written pre-approval in the format of a waiver is required. In order for Supplier to obtain a waiver Supplier must contact F-SS purchase department.

Q150 Commercial products (of the shelf products) – Supplier shall deliver a product that complies with the description made available through its quote, catalogue, website or type of information at the time of the purchase order. Supplier shall not deliver a subsidiary product by for example another manufacturer different from the one ordered, without written pre-approval from F-SS.

Q180 Best Effort, F-SS acknowledge no exact product is specified. Supplier shall deliver the product as best effort.

Q181 Time & Material – Supplier shall deliver the product or products on time and material basis. Supplier shall deliver in accordance with specifications but shall not exceed to cost agreement in terms of time and materials.

Q200 Delivery requirements

Q201 Delivery note – Supplier shall as minimum state the following information on a delivery note:

- *F-SS Purchase Order number.*
- *Supplier item/Part number*
- *Description and quantity of each type of product included in the shipment.*
- *If the shipment is only a partial delivery is shall be clearly marked as such in the delivert note. The quantity ordered and the quantity delivered shall both be stated.*
- *If the delivery contains of more than one box, each box shall be marked with the unique box number along with the total number of boxes. For example box “1 / 3” or “1 out of 3” where the order consists of three boxes in total.*
- *F-SS reference, where applicable.*
- *F-SS item number, where applicable.*

Q250 Financial requirements

Q251 Invoices – Supplier shall as minimum include the following information in the invoice:

- *Product name, quantity and price.*
- *F-SS order number.*
- *F-SS reference.*
- *Supplier Invoice number and date.*
- *Payment information (Account, IBAN or SWIFT)*
- *Due date*
- *Supplier item number*
- *F-SS item number, where applicable.*

Invoices shall be forwarded to finance@falck-schmidt.systems invoices send by other means will not be handled.

Q252 Credit notes – Where Supplier issues a credit note the same requirements as in Q251, except the *Due date*, shall apply.

Q270 HTS codes and weight – Supplier shall for products manufactured outside The Kingdom of Denmark, on the invoice for each product shipped, state the corresponding HTC. Supplier shall state the total weight of the shipment on the invoice.



Q300 Business Ethics and Interaction Requirements

Q301 Good faith – Supplier shall act in good faith in its entire business performance with F-SS. Supplier shall not willfully render only substantial performance.

Q302 Business interruption - Supplier shall, without any delay, inform F-SS in case in the event of, but not limited to: Labor Strike, loss of significant manufacturing capacity or capability, having any Government contract terminated for default, being subject to criminal charges or investigation for *Fraud, Waste and Abuse*, or having products or production suspended by a public authority.

Q303 Business support - Supplier shall support F-SS by reasonable means and within reasonable time, with technical clarifications, documentation or other relevant business documents to support F-SS in handling any claim or dispute issued by a customer to F-SS. In the event of severe injury or death, fully or impartial, as a result, of a product delivered by Supplier, Supplier shall provide unlimited support as part of the investigation along with unlimited access to documents and records deemed relevant by the investigators and official authorities.

Q304 Government Access Supplier shall allow Government officials or their designated agents' reasonable access to their facilities, personnel and to Government owned property.

Q310 - Anti corruption – Supplier shall in its business interaction with sub-suppliers or Governments neither provide nor take any additional payment in any form, which are not stated by contract or regulated by law. Supplier shall not provide any personal favors or gifts to Government personnel or designated Government agents' of any kind. Supplier shall not provide any personal favors to any representative of a sub-supplier or agent as part of a business transaction.

Q400 Product Conformity

Q401 Drawings - All drawing specifications shall apply. Appliance includes specified documentation. Non-compliant product may be returned at Suppliers expense.

Q402 Non-Compliant products - No products non-compliant with the drawing shall be sent, without written permission (waiver) from F-SS. The request for a waiver shall be filed early enough in order to prevent the impairment of promised delivery dates. If Supplier is not able to definitely exclude that non-compliant products have reached F-SS, Supplier shall inform F-SS without any delay.

Q403 Certificate of Conformity - Supplier shall deliver a Certificate of Conformity (COC) for products delivered. The COC must be signed off by a person independent from the function that has manufactured the parts.

Q404 Measurement report, 100% - Supplier shall deliver a measurement report for all measurements stated on the drawing and verification of all product characteristics. Where specifications are stated in numbers, the actual measured value shall be included in the report along with method and measurement equipment tolerances.

Q405 Measurement report, critical measurements - Supplier shall deliver a measurement report for all critical measurements stated on the drawing. Where specifications are stated in numbers, the actual measured value shall be included in the report along with method and measurement equipment tolerances.

Q406 – Products with shelf life – Products with expiration dates shall be clearly marked with the expiration date. Upon shipment of such products to F-SS the remaining time before the product expires, shall be not less than 80% for each product.

Q407 Configuration Management – Supplier shall maintain configuration records of the product including but not limited to changes in: Sub-suppliers, material, machinery, measurement equipment, tests and acceptance documentation.

Q408 Re-work - Supplier shall not re-work any item that changes the configuration of the product without written pre-approval from F-SS. In the need of a configuration change Supplier shall forward a written engineering change proposal to F-SS. Such proposal shall be filed early enough in order to prevent the impairment of promised delivery dates.

Q409 Support – Supplier shall support F-SS with technical questions necessary to ensure correct and safe performance of the delivered product. Any such enquiry shall be answered within 5 calendar days.

Q410 Material certificate – Supplier shall submit a material certificate (MTC) in accordance with EN 10204 3.1 for each type of material.

Q411 Accredited Material certificate, - Supplier shall submit a material certificate (MTC) in accordance with EN 10204 3.2 for each type of material.

Q420 Quality Activity Plan - Supplier shall develop a quality activity plan covering those activities that are necessary to comply with drawing specifications. The plan shall be available for F-SS upon request.

Q421 Product Inspection Plan – Supplier shall develop a Product Inspection Plan minimum covering: Inspection method; acceptance criteria and tolerances. The plan shall be available for F-SS upon request.

Q422 Risk Management Plan - Supplier shall develop a Risk Management Plan minimum covering the technical risks and mitigations implemented to lower the identified risks. The plan shall be available for F-SS upon request.

Q423 Safety Management Plan – Supplier shall develop a Safety Management Plan covering all risks that can harm and injure a user of the product. Mitigations to lower risks shall be included in the format of an FMEA. The plan shall be available for F-SS upon request.

Q424 Product Control Plan – Supplier shall develop a Product Control plan. The Product Control Plan shall as a minimum identify critical processes and critical product characteristics. Supplier shall establish statistical criteria for process performance boundaries and monitor and record special courses. The plan shall be available for F-SS upon request.

Q450 Special processes, welding – All persons performing welding shall be certified from an independent accredited institute. Supplier shall maintain full traceability for the person who has performed the welding, initial test results (where applicable) and type of machinery. Supplier shall deliver proof of a controlled process performance in the format of data cards, furnace diagrams and/or coating reports. *For welding for ballistic protection see Q1100.*

Q460 Special processes, surface treatment - Supplier shall deliver proof of a controlled process performance in the format of data cards, furnace diagrams and/or coating reports.

Q470 Special processes, soldering - Supplier shall deliver proof of a controlled process performance in the format of data cards, furnace diagrams and/or coating reports.

Q480 Special processes, other – Supplier shall deliver proof of a controlled process performance as outlined in the attached document to the purchase order.

Q500 First Piece Inspection, First Article Inspection

Q501 First Piece Inspection (FPI), - This order contains products that must be inspected, as first piece products at F-SS premises. Supplier shall be aware that these products will be inspected in accordance with F-SS incoming inspection regarding FPI.

Q502 First Article Inspection (FAI), - This order contains products that must be inspected, as first piece products at F-SS premises. Supplier shall be aware that these products will be inspected in accordance with F-SS incoming inspection regarding FAI.

Q1000 Product Conformity - Defense Systems

Q1010 F-SS or customer property - All reworked, repaired or replaced, all original defective replaced/removed parts shall be returned to F-SS.

Q1011 FAR and DFAR compliance -The supplier shall comply with FAR and DFAR regulations listed in the amendment to the purchase order.

Q1100 Welding, ballistic protection – Supplier shall develop a welding program further specified in the amendment to the purchase order. The program shall be approved by F-SS.

Q1200 Environmental compliance requirements – The product shall comply with the following standards (where applicable):

- MIL-STD-810G, Method 501.5, Procedure II, +44°C
- MIL-STD-810G, Method 502.5, Procedure II, -32°C
- MIL-STD-810G, Method 501.5 Procedure I, +63°C
- MIL-STD-810G, Method 502.5 Procedure I, -33°C
- MIL-STD-810G, Method 507.5, Procedure II
- MIL-STD-810G, Method 506.5 Procedure II
- MIL-STD-810G, Method 514.6, Procedure I, Category20, Table 514.6C-VI, Figure 514.6C-3
- MIL-STD-810G, Method 514.6, Procedure I, Category11 (Rail Road-Train), Figure 514.6C-10
- MIL-STD-810G, Method 514.6, Procedure I, Category8 (Aircraft-Propeller), Figure 514.6C-7
- MIL-STD-810G, Method 516.6, Procedure I - Functional Shock, Table 516.6-II 20g 11ms
- MIL-STD-810G, Method 500.5, Procedure II (3000m,-4.5°C)
- MIL-STD-810G, Method 505.5
- MIL-STD-810G, Method 510.5, Procedure I
- MIL-STD-810G, Method 521.3 (13 mm ice thickness).
- MIL-STD-461F

The Supplier shall submit a matrix stating how compliance requirements are met: (Test, Analysis, Similarity or N/A). Where “Similarity” is stated, supplier shall state the similar product. Where similar civil standards are used for tests, this shall be clearly stated in the matrix. Supplier shall also clearly state any tailoring. Supplier shall submit an updated matrix when changes occur.

Q2000 Product Conformity - Space Applications

“The sky is not the limit – it’s our starting point”

Q2001 Space Applications – Supplier shall submit a Certificate of Conformity (COC) signed by an independent function from the function that has manufactured the parts. The Certificate of Conformity must clearly state that all specified requirements are met or exceeded, process configuration has not been changed and that all tests required are successfully passed “as is” and that at no point during the manufacturing process any re-work or any re-performance of test have been performed in order to achieve conformity. Where special causes have occurred during the manufacturing, this shall be clearly stated along with any precautionary actions taken.

Q2010 ECSS standards compliance

Q2011 ECSS-Q-ST-09 compliance - Supplier shall, without any delay, inform F-SS of all non-conformance products which have an impact to: Safety or equipment; Operational, functional, or technical requirements imposed by the business agreement; Reliability, maintainability, availability; Lifetime; Functional or dimensional interchangeability; Interfaces with hardware/software; Changes from approved qualification or acceptance test; Project specific items proposed to be scrapped. F-SS will establish a Nonconformance Review Board (NRB). Supplier shall follow the directions of the NRB in terms of providing data from containment actions, root-cause analysis, corrective and preventive actions. F-SS shall be the final authority of in close-out the non-conformance. All documents being part of the handling of the non-conformance shall be available to F-SS upon request.

Q2012 ECSS-Q-ST-10C compliance - Supplier shall have an appointed Product Assurance Manager for the manufacturing of the product. The Product Assurance Manager shall develop, implement and maintain a Product Assurance Management plan during the manufacturing of the product. The Product Assurance Management plan shall as a minimum cover: Activities, processes and reference to applicable procedures for quality assurance, safety, dependability and materials conformity. The plan shall be available for F-SS upon request.

Q2013 ECSS-Q-ST-20C compliance - Supplier shall, through a documented system where applicable, trace: data, personnel and equipment related to procurement, manufacturing, inspection, test, and assembly. Records shall be available to F-SS upon request.

Q2014 ECSS-Q-ST-30-02C compliance – Supplier shall develop and maintain a Production FMEA for the manufacturing of the product. The Production FMEA shall be available to F-SS upon request.

Q2015 ECSS-Q-ST-70-01C compliance – Supplier shall through an establish process ensure that the final product complies with the cleanliness requirements specified in the attachment to the purchase order. Documents and records shall be available to F-SS upon request.

Q2016 Alerts, For product all-ready delivered or is in the process of being manufactured, Supplier shall in writing alert F-SS, without any delay, if a product characteristic if found different from previous expected and if Supplier is unable to exclude that the product characteristic, will impact form, fit or function at a higher assembly level. (F-SS recognizes that the products may still have met specified requirements at the time ordered or delivered.)

Q2030 NASA standards compliance

Q2031 NASA standard compliance – Supplier shall through an establish process ensure compliance with the NASA documents specified in the attachment to the purchase order. Documents and records shall be available to F-SS upon request.

Q2050 Compliance with other standards

Q2051 SAE AS 9102 Form 3 – Supplier shall maintain a control plan compliant with SAE AS 9102 Form 3. The following shall apply:

<u>Lot Size</u>	<u>Sample Size</u>
1	1
2-15	2
16-25	3
26-90	5
91-150	8

Product inspected by a sampling plan for delivery on this purchase order must use an acceptance number zero.

The inspection report shall include the following:

- 100% inspection of the characteristics

- 100% inspection and measurements of the drawing requirements
- All data for GD&T calculations (i.e., X, Y coordinates for true position etc)
- Inspection reports for sub-assemblies, parts, details when included in the end item drawing or computer model
- All welding symbols
- Inspection report form(s), annotated/ballooned drawing and all supporting documentation (i.e., certifications, test reports, etc).
- Signature, date, and title of the responsible inspection.