



Purchase Order Quality Requirements (POQR) Revision A Date 1/30/20

QA CLAUSES ARE MANDATORY AND APPLICABLE TO ALL PURCHASE ORDERS

QA1 – NOTIFICATION OF CHANGES BY THE SUPPLIER:

During performance of the contract, the Supplier is required to give Triumph Actuation Systems, LLC written notice when making any changes in the systems and/or address change or processes and/or procedures previously approved by Triumph Actuation Systems, LLC or changes in management personnel that have responsibility for quality of product or service furnished to Triumph Actuation Systems, LLC.

Triumph Actuation Systems, LLC, at its option, may elect to conduct an on-site evaluation to determine the impact of such changes on previous approvals or potential effect on product or service quality levels including name change.

QA2 - GOVERNMENT RATED CONTRACTS

Rated orders are identified in the purchase order by a priority rating consisting of the rating – either DX or DO – and a program identification symbol. Rated orders take preference over all unrated orders as necessary to meet required delivery dates. Among rated orders, DX rated orders take preference over DO rated orders.

Suppliers are required to flow the rating to sub tiers for the item they need to fill the orders. This provision ensures that suppliers will give priority treatment to rated orders from contractor to subcontractor to suppliers throughout the procurement chain.

Export Compliance - Some of the purchase orders issued by Triumph Actuation Systems, LLC are in support of government contract programs. The technical data provided by Triumph for these programs is subject to the restrictions and regulations of either the International Traffic in Arms (ITAR) or Export Administration Regulations (EAR) jurisdiction. The supplier hereby represents and agrees that all technical data provided by Triumph Actuation Systems, LLC in support of these programs will be used in strict compliance with the

regulations set forth in the ITAR or EAR regulations and solely used for the performance of the work hereunder. The supplier further agrees to implement any necessary procedures for restricting access to said technical data to U.S. Persons only. If during the performance of the contract, the supplier is required to provide such technical data, or part thereof, to a sub-tier supplier, the supplier may do so provided that the sub-tier supplier is considered to be a U.S. Person and that the supplier imposes all the same restrictions contained herein upon the sub-tier supplier. Disclosure and access to said technical data by a foreign national is subject to any restrictions or licensing requirements of the organization with jurisdiction over the program (ITAR or EAR). Supplier shall, upon completion of the contract hereunder, including any warranty period, ensure that any technical data is either destroyed or returned in whole to Triumph Actuation Systems, LLC.

QA3 - SPECIAL PROCESSING SUB TIERS

“Use only special process suppliers listed on the NADCAP Approved Vendor List”

Exceptions:

- a. If the drawing **is not** a Triumph Actuation Systems, LLC original or current design authority **1SR57** or **26437** found on the bottom right of the engineering drawing, **use** the customer (design authority) Approved Vendor List, i.e. Northrop Grumman, Gulfstream, etc.
- b. If the specification listed on the Triumph Actuation Systems, LLC drawing **is** a customer spec number **use** the customer AVL, i.e. BAC spec, use Boeing AVL

This excludes NDT processes. NDT processes performed externally and internally must be **NADCAP accredited as applicable.**

Ensure specification listed is being performed to the latest revision within 90 days of the latest change.

QA4 - UNAUTHORIZED USE OF NONCONVENTIONAL MACHINING METHODS

Unless otherwise specified on the engineering drawing, specification or purchase order, supplier or sub tiers shall not use any non-conventional manufacturing or processing methods, such as electrical discharge machining (EDM), electro chemical machining (ECM), laser or abrasive water jet cutting, flame spray coatings, etc., without proper written authorization from Triumph Actuation Systems, LLC.

QA5 – CURE DATES FOR ELASTOMERS/EXPIREABLES

Elastomers - Cure date shall meet industry standard, AS5316 latest revision, unless otherwise specified on the purchase order or contract. Customers and/or Customer Programs called out on the Purchase Order such as, Northrop Grumman and Gulfstream shall meet eight (8) quarters or less. Expirables (Paints, Primers, Adhesives, Epoxies, Sealants, etc.), 100% -80% of shelf life must be remaining upon date of receipt at Triumph Actuation Systems, LLC.

QA6 – Supplier Sampling Plan

Located on the Supplier Portal under the following location:

https://www.triumphsupplysource.com/suppliers/pageview_internal.php

QA7 – Packaging, Packing, Marking Requirements

Located on the Supplier Portal under the following location:

https://www.triumphsupplysource.com/suppliers/pageview_internal.php

QA8 - Source Controlled Drawings: Typically used for components that are qualified to application-specific requirements that have been reviewed and approved by Triumph Actuation Systems, LLC Engineering Department.

Any changes to these Source Controlled Drawings after the initial approved design must be submitted to Triumph Actuations Systems, LLC Engineering for review and documented approval.

QA9 Digitally Scanned Cert Packages: Triumph requires that when a part is ready to ship to TAS-Clemmons, your Quality Department will scan the complete cert package and email it to: TASNC-CERTPKGS@triumphgroup.com. The cert package should be named using the following naming

convention: Part Number, Purchase Order, Packing Slip, Date: Part Number. Purchase Order. Packing Slip. Date
(1FA123456.123456.12345.02132015)

Delegated Suppliers will use: TASNC-SIDAPKGS@triumphgroup.com for eligible SIDA part numbers.

The cert package should be named using the following naming convention: Part Number, Purchase Order, Packing Slip, Date: Part Number. Purchase Order. Packing Slip. Date
(1FA123456.123456.12345.02132015)

The shipment of delegated parts would only need to have a Packing Slip, SCMP 4.1(f) in color and a Certificate of Conformance upon receipt at Triumph.

QA10 - CERTIFICATE OF CONFORMANCE

- a. Standard hardware, electronic piece parts (NAS, AN, MS std. hardware, etc.),
- b. Suppliers approved for the Supplier Inspection Delegation Authority (SIDA) program, and
- c. Source Controlled Drawings, each shipment shall be accompanied by a legible and reproducible copy of a Certificate of Conformance. The Certificate must include, at a minimum, the following:
 1. Suppliers name and address.
 2. Triumph Actuation Systems, LLC purchase order number.
 3. Quantity shipped.
 4. Country of Origin
 5. Triumph's part number and vendor part number (if applicable) and revision number.
 6. Serial Numbers, Batch Numbers, Cert Numbers, Heat Numbers or Cure Dates as applicable.
 7. Signature and Title of Authorized Representative.
 8. The Certificate of Conformance must contain a statement that processing and tests have been performed as required and meet the drawing requirements and/or purchase order.
 9. Products controlled by heat numbers, cert. numbers, batch numbers or cure dates must be linked to the certificate of conformance by the controlling number.
 10. Each shipment also must be accompanied by **legible and reproducible** copies of all raw material, processing, test and hardware certifications needed to produce the part in

accordance with the engineering drawing and/or purchase order requirements.

11. The Suppliers Certificate of Conformance with the title of the Authorized Representative must be submitted with each shipment.

QA11 - SQAM001 Triumph's Supplier Quality Manual applies

Located on Triumph's Supplier Portal

QA12 - DIMENSIONAL FIRST ARTICLE INSPECTION

Triumph Actuation Systems, LLC requires full compliance to **SAE AS9102 using the latest revision**, "*Aerospace First Article Inspection Requirement. The supplier shall provide a copy of the Ballooned Drawing with each characteristic and/or requirement clearly marked with unique identifier number. The number may be circled or boxed for easy visual identification.*

QA13 - Supplier-Responsible Nonconformance Cost Recovery

At the discretion of TAS-Clemmons, suppliers may be subject to charges for recovery of costs associated with any/all supplier-responsible non-conforming parts/material. Such charges may include:

1. Up to \$300 (USD) administrative charge for each non-conformance document generated by a Triumph supplier.
2. Up to \$100 (USD) administrative charge for each request for error corrections required to a certificate or Certificate of Conformance or missing cert generated by Triumph supplier.

QA14 - Acceptance Authority Media (AAM)

Triumph Actuation Systems, LLC (TAS-Clemmons) suppliers **shall** have as part of their QMS a policy for their employees and suppliers of the use of Acceptance Authority Media (AAM). Suppliers AAM policy shall comply with the AS/EN/JISQ 9100 Requirements and 14 CFR 21.2.

TAS-C suppliers shall upon request, be able to demonstrate evidence of communication to its employees and to its supply chain; use of AAM must be considered as a personal warranty of

compliance and conformity per AS/EN/JISQ 9100 Requirements and 14 CFR 21.2.

The areas of focus of this assessment shall include but are not limited to:

- Authority Media Application Errors (i.e. Omission, Typos, Legibility, etc.)
- Authority Media Application Untimely Use (i.e. Documentation is not completed as planned, "Stamp/Sign as you go", etc.)
- Authority Media Application Misrepresentation (i.e. Uncertified personnel, Falsification of documentation, Work not performed as planned, etc.)
- Authority Media Application Training Deficiencies (i.e. Ethics, Culture awareness, Proper use of authority media, etc.)

END OF QA CLAUSES


ADDITIONAL QUALITY ASSURANCE REQUIREMENTS ARE APPLICABLE ONLY WHEN NOTED ON THE PURCHASE ORDER:

QAR16 - SOURCE INSPECTION/TEST Triumph Actuation Systems, LLC source inspection is mandatory on this purchase order. Section 8.6 of SQAM001 shall apply to this requirement. It is not necessary for suppliers to contact Triumph to schedule source inspection activities. Triumph utilizes the Verify e-launch system to manage and deploy Verify personnel to support Triumph's source inspection program. Utilize the link within Section 8.6 or access the supplier portal and enter Approved Sources-Authorized Providers for scheduling an e-Launch Source Inspection request to Verify.

QAR17 - GOVERNMENT SOURCE INSPECTION

Government inspection is required prior to shipment from your plant. Upon receipt of this order, promptly notify the Government Representative who normally services your plant so that appropriate planning for government source inspection can be accomplished.

QAR18 - SUPPLIER INSPECTION DELEGATION AUTHORITY (SIDA)

Suppliers that have been evaluated, approved, and listed on Triumph Actuation Systems, LLC Approved Suppliers List for this program, must conform to all requirements of QP-0020 when this QAR is noted on the purchase order and Section 9 of SQAM 001. Applicable to all qualifying delegated products. Non-qualifying products as defined in QP-0020 Section 11.0 and non-delegated product must conform to the requirements of QAR32. The Supplier Quality Management System requires being registered or compliant to AS9100. All Method 1 SIDA suppliers are required to submit with each shipment the  Form SCMP 4.1 (f) - Inspection Delegation Compliance Form

QAR19 - PREFERENCE FOR DOMESTIC SPECIALTY METALS.

The seller agrees to incorporate into any articles to be delivered under this purchase order specialty metals melted in the United States, its possessions, or a qualifying country. Specialty metals are defined in **Defense Federal Acquisition Regulation Supplement DFAR 252.225-7009 and its Alternate 1, restriction on Acquisition of Ball and Roller Bearings in DFAR 252.225-7009, and Qualifying Countries are listed in DFAR 225.872-1(a).**

In addition to information related to this purchase order, and as a minimum, certification for specialty metals shall include the following:

1. **Raw Materials Suppliers:**
 - a. Material Specification.
 - b. Origin or name and location of melting facility.
 - c. Lot, heat, or batch number.
2. **Machined Parts Suppliers (including SIDA)**
 - a. Material Specification.
 - b. Origin or name and location of melting facility.
 - c. Lot, heat, or batch number.
3. **Fasteners**

Statement:
"This shipment of product contains DFAR Compliant Material"
Exception: Unless Supplier has obtained approval from TAS, LLC.
4. **Needle and Roller Bearings Suppliers**

Statement:
"This shipment of product contains DFAR Compliant Material"

Exception: Unless Supplier has obtained approval from TAS, LLC.

5. Source Control Design Suppliers

Statement:

"This shipment of product contains DFAR Compliant Material"

NOTE: By order of the Under Secretary of Defense on January 29, 2008, DNADs for fasteners and needle roller bearing are to be canceled and therefore no longer applicable.

QAR20 - Special Customer Requirement AIRBUS/CESA/SAFRAN

Airbus expects all its suppliers to understand and comply with REACH. If you have any questions regarding the requirements of REACH you may access the European Chemicals Agency: http://ec.europa.eu/environment/chemicals/reach/reach_intro.htm

This purchase order has Airbus **GRESS** (General Requirements for Equipment & Systems Suppliers) flow down to sub tiers. Applicable modules and compliance should be coordinated with your buyer.

QAR21 - Special Customer Requirement - GOODRICH

Goodrich Supplier Quality Requirements Manual, current rev, applies - Available on request from your buyer.

QAR22 - Special Customer Requirement - EATON INDUSTRIAL CORP. / ARGO TECH

Supplier's systems shall ensure flow down of all requirements of this document to its sub-tiers. DOC QC 06.1, latest revision applies, <http://www.eaton.com/Eaton/index.htm>

QAR23 - Special Customer Requirement - HONEYWELL

Honeywell expects all its suppliers to understand and comply with REACH. If you have any questions regarding the requirements of REACH you may access the European Chemicals Agency http://ec.europa.eu/environment/chemicals/reach/reach_intro.htm

Honeywell SPOC Manual requirements, current revision, apply to all sub-tiers, manual is available at: <https://www.supplier.honeywell.com>
HONEYWELL APPROVED SOURCES REQUIRED FOR SPECIAL PROCESSES

QAR24 - Special Customer Requirement – MESSIER-DOWTY

Supplier Pride Manual, Current revision applies, Manual is available at:

<http://www.safranmbd.com/?lang=en>,

Messier-Dowty Build-to-Print Suppliers must be on Messier-Dowty Approved Supplier List.

THIS ORDER IS PART OF A MESSIER-DOWTY CONTRACT

QAR25 - Special Customer Requirement – NORTHROP GRUMMAN

SQAR Manual - Current revision applies, Requirements can be found at:

<https://oasis.northgrum.com/>,

NG APPROVED SOURCES REQUIRED FOR SPECIAL PROCESSES

QAR26 - Special Customer Requirement – TRIUMPH AERO STRUCTURES (formerly VOUGHT)

All parts are to be identified with a 6-digit Vought Supplier code - **406035** per drawing requirement, Vought Approved Processor listings can be accessed via Vought's Internet Web site <http://www.voughtaircraft.com/suppliers>

QAR27 - Special Customer Requirement – MOOG

This order is part of a **Moog Contract. Moog SQR-1 applies and can be located on Triumph's Supplier Portal: Quality Requirements - Business Unit Quality Requirements – Clemmons.** If goods or services are related to a Government Contract, Form 116-32 applies, www.moog.com

MOOG APPROVED SOURCES REQUIRED FOR SPECIAL PROCESSES and RAW MATERIAL

QAR28 – Special Customer Requirement – Hamilton Sundstrand/UTAS/Pratt & Whitney

– Refer to ASQR-01 for Quality System Requirements for specific Trident II D5 procurement requirements. Available upon request from your buyer.

QAR 29 – Special Customer Requirement – Gulfstream – APPROVED SOURCES REQUIRED FOR SPECIAL PROCESSES

QAR 30 – Special Customer Requirement – Bell Helicopter

A special customer requirement quality clause for Bell, ASL listing shall be added for standard components (i.e. nuts, bolts, washers...). ASL document 299-099-900. This does not affect

standard processing for parts which is governed by our requirements for NADCAP approved supplier.

QAR 31 – Special Customer Requirement – Boeing Commercial/Military

D1-4426 flow down requirements on special process purchase orders.

QAR 32 - Supplier Final Inspection Verification Checklist Form QF-0112

Located on the Supplier Portal under the following location: Quality Requirements – Business Unit Quality Requirements – Clemmons Quality Requirements. QF-0112 is required for all non-qualifying delegated product as defined in QP-0020 Section 11.0 and all non-delegated product. The supplier **must** complete this form and attach it to the cert package.

QAR 33 – Direct Ship Authorization

Direct Ship authorizes approved and delegated suppliers to drop ship articles to Triumph customers.

QAR 34 – APQP Elements Required – Items noted below shall be submitted to Triumph – Clemmons Supply Chain Manager for review and approval when noted on the Purchase Order.

(Example: QAR34 Items 1, 2, 5, 6 & 9 apply)

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 labeling Approvals
9. First Article Inspection Report (FAIR)
10. Customer PPAP Requirements
11. PPAP Approval Form (or equivalent)

END OF ADDITIONAL QUALITY (QAR) REQUIREMENTS

Signatures of Approval

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| Director of Quality-----Sean Wood |
| |
| Director of Operations---Doug Williford |
| |
| Procurement Manager----Griff Parrish |
| |
| Director of Program Management---Jonathan Woodruff |
| |
| Director of Engineering---Anil Rayidi |
| |
| Controller---Kristi Rich |

REVISION RECORD CHANGES

Reason for change:

Date/Rev: 1/26/18 Rev NC

Date/Rev: 1/30/20 Rev. A **Update cure date for elastomers to meet industry standard with the exception of those for Northrop Grumman or Gulfstream**