

**QUALITY ASSURANCE PURCHASE ORDER REQUIREMENTS**

Revision V Release Date: 04/08/2008

**1. QUALITY SYSTEM REQUIREMENTS**

- 1a. Supplier shall maintain a Quality Management System [QMS] certified by accredited independent third party registrar to Aerospace Standard SAE AS9100, International Standard ISO9001:2000 or equivalent, and/or NADCAP for special processes, inspection and non-destructive testing, as applicable.
- 1b. Supplier shall maintain a Quality Management System [QMS] or Quality Inspection System [QIS] which provides a high degree of confidence that all material and services provided conform to all purchase order requirements. As a minimum, the Quality System must be modeled after, or be compliant with MIL-I-45208, ISO 9001:2000 or an equivalent/superior quality standard / system acceptable to Meggitt Airodynamics and shall maintain a Calibration Program compliant with MIL-STD-45662 or International Standard ISO10012.

**2. SURVEILLANCE BY MEGGITT AIRDYNAMICS AND RIGHT OF ENTRY**

All items covered by this purchase order are subject to surveillance by a Meggitt Airodynamics Supplier Quality Representative and or Government/Customer Representative. Government Representative may be Defense Contract Management Agency [DCMA] or Military. The supplier shall also allow Meggitt Airodynamics Supplier Quality Representative and or Government/Customer Representative the right to enter the supplier facility at any time during manufacture of product contracted for by this purchase order.

This will include surveillance of the products and supplier's systems, procedures and facilities. The supplier shall furnish, at no cost, necessary facilities and equipment, supply data, and perform tests as required by applicable drawings, specifications, and Inspection Instructions under surveillance of the Meggitt Airodynamics Supplier Quality Representative. Not with standing the provisions of this clause, all items shall be subject to inspection and acceptance by Meggitt Airodynamics and/or Government/ Customer Representative.

**3. SOURCE INSPECTION BY MEGGITT AIRDYNAMICS PRIOR TO SHIPMENT**

All items covered by this Purchase Order are subject to inspection at the supplier's facility by Meggitt Airodynamics Quality Representative prior to shipment. The supplier shall furnish, at no cost, acceptable facilities and equipment to the Meggitt Airodynamics representative for his inspection. The supplier shall provide no less than forty-eight (48) hours advance notice to the Quality Representative to permit scheduling of source inspection. Evidence of the completed Meggitt Airodynamics source inspection shall accompany each shipment evidenced by the Meggitt Airodynamics Inspector stamping and signing the supplier's shipping document. Notwithstanding the provisions of this clause, all items may be subject to inspection and acceptance by Meggitt Airodynamics and/or Customer / Government Representative to Meggitt Airodynamics, by giving 24 hours notice and shall be granted access to supplier's facility in order to accomplish Source Inspection and to inspect Tooling, Material, Certification Documents, and scheduling information.

**4. SOURCE INSPECTION BY GOVERNMENT AGENCY**

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

On receipt of this order, promptly furnish a copy to the Government Representative that normally services your facility or, if none, to the nearest Army, Navy, Air Force, or Defense Supply Agency Inspection Office. In the event the representative cannot be located, our purchasing agent should be notified immediately.

The supplier shall report to the Government Representative any nonconformance found on Government source-inspected supplies and shall require his supplier to coordinate with his Government Representative on corrective action.

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### 5. CERTIFICATION OF CONFORMANCE AND RECORD RETENTION

Manufacturer: Each shipment must be accompanied by a signed, legible and reproducible copy of a conformance certification stating that the items were produced from materials on which the supplier has available for examination, specific data or other objective evidence of conformance to applicable specifications. The certificate must contain the signature and title of an authorized representative of the supplier.

Furnished Material: Each shipment must be accompanied by a signed, legible and reproducible copy of a conformance certification stating that the items were produced from materials furnished by Meggitt Airodynamics for the production of such items.

Distributor: The supplier shall certify that the articles delivered under this contract conform to the requirements set forth in the procurement specification and applicable detail specification. The supplier is required to use the approved / qualified product lists as required by the drawing and or specification. The supplier shall maintain on file, a certification as to the ORIGIN of manufacture and procurement, applicable traceability information for articles delivered, (e.g., date code/lot number), and part number. The certification shall be dated and bear the actual signature and title of an authorized representative of the supplier of the article(s). The certification shall be made available to Meggitt Airodynamics upon request.

Record Retention: The supplier shall retain records as required by this specification for 11 years. All records shall be made available upon request to the Buyer or Government Representative. Records shall provide evidence that the required inspections and tests have been performed, including part, component, or system identification, inspection or tests involved, number of items accepted or rejected. The records shall be suitable in format, accuracy, and completeness to permit analysis. Where numerical results are required, the actual values obtained shall be recorded. Where tape, film or other media are required, they shall be identified with the characteristics measured. Where defective or non-conforming material is involved, the records shall include the results on analysis and corrective action taken.

### 6. CERTIFIED SUPPLIER PROGRAM

In an effort to reduce supply chain costs and improve product quality Meggitt Airodynamics [MA] has established a Certified Supplier Program [VIPER] for approved suppliers. This program grants authority to the Supplier's Quality Department to perform selected inspection, surveillance and acceptance activities in lieu of Meggitt Airodynamics performing these functions. Products accepted by the Supplier's Quality Department are routed directly to stock without the need of further inspection other than performing periodic product audits and document review. Suppliers providing hardware under Meggitt Airodynamics Certified Supplier Program benefit from expedited payment of invoices and competitive advantage when bidding on MA contracts. In addition, defective part rejection charge-back to the supplier shall be waived provided MA delegated Vendor Inspection Personnel [VIP] notify Meggitt Airodynamics of any potential problems prior to ship. When this clause is invoked by the purchase order, the MA delegated Vendor Inspection Personnel must perform required inspections and stamp all shipping documentation with their assigned Meggitt Airodynamics Certified Supplier [MACS] stamp for evidence of 100% review, inspection and acceptance to drawing, specification and purchase order requirements. In the event a supplier consistently fails to meet these requirements, they may be disqualified and / or removed from the Supplier Certification Program and / or Approved Vendor List. Supplier quality delegated inspection is to be performed in accordance with the cited Quality Clause[s] listed below:

**6a.** Perform acceptance sampling inspection in accordance with ANSI Z1.4, AQL 4.0 on all key, critical and major blueprint dimensional characteristics, blueprint notes, and any special process requirements [as applicable]. Sampling inspection results documentation must be submitted with each lot shipment.

**6b.** Perform 100% First Article Inspection on all dimensional and blueprint characteristics and supply all FA documentation including an itemized FA blueprint in accordance with Aerospace Standard SAE AS9102.

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6c. Perform 100% inspection on selected blueprint dimensions, notes, features, characteristics, etc. as cited in the purchase order. Inspection results documentation must be submitted with each lot shipment.

### 7. DOCK-TO-STOCK CERTIFICATION PROGRAM

Meggitt Airdynamics is committed to doing business with suppliers that consistently support our quality and continuous improvement goals. To this end... As a result of *your* demonstrated commitment in meeting our goals, this item has been approved for our Dock-To-Stock Certification Program, which means this item upon receipt will go directly from our *dock* to our *stock* with little or no incoming inspection. Your approval is based on superior quality history [supplier rating] and zero rejections from a predetermined number of lots inspected. Suppliers providing hardware under Meggitt Airdynamics Dock-To-Stock Certification Program benefit from expedited payment of invoices and competitive advantage when bidding on MA contracts. To maintain Dock-To-Stock status on this item please ensure the item continues to conform to specified quality requirements and that all required documentation [i.e., certs, test reports, etc.] as delineated by other quality clauses on the purchase order are being supplied with the item. Also, please notify your buyer immediately if you have any quality / delivery issues so we can work together to resolve them. In the event a supplier consistently fails to meet these requirements, they may be disqualified and / or removed from our Dock-To-Stock Certification Program and / or Approved Vendor List. On behalf of our Supply Chain Management and Quality Assurance Department... *Congratulations on achieving Meggitt Airdynamics Dock-To-Stock Certification Program status for this item!*

### 8. RAW MATERIAL CHEMICAL AND MECHANICAL CERTIFICATIONS

Each shipment must be accompanied by a legible and reproducible copy of all material certifications used to produce the items contracted for by this purchase order. In addition, when required by the material specification, a legible and reproducible copy of all chemical and mechanical analysis certification test reports shall be submitted. These reports must contain the signature and title of the authorized representative of the agency performing the test and must assure conformance for specification requirements.

### 9. PENETRANT AND MAGNETIC OPERATOR INSPECTION CERTIFICATION

Dye penetrant, fluorescent penetrant, magnetic particle ultrasonic, x-ray and eddy current inspection processes as referenced on drawings and/or specifications applicable to this order must be accomplished by Inspection operators properly certified in accordance with NAS410.

### 10. FUNCTIONAL TEST REPORT

Each shipment must be accompanied by a legible and reproducible copy of reports of actual test results identifiable with test parameters and products submitted. These reports must contain the signature and title of the authorized representative of the agency performing the test and must assure conformance to specified requirements. [NOTE: Functional tests are defined as operational inspections, e.g., mechanical, electronic, hydraulic, etc.]

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### 11. SPECIAL PROCESS SOURCES REQUIRED

All special processes required by this purchase order shall be conducted by Meggitt Airdynamics approved sources, when the product procured is a Meggitt Airdynamics source controlled product. Each shipment must be accompanied by a legible and reproducible copy of a certificate containing the signature and title of an authorized representative for all processes used such as heat treating, Nondestructive Evaluation [NDE], soldering, welding, environmental testing such as vibration, acoustic, shock, surface preparation and treatment, etc. The certificate shall include the processing used, the specification to which the special process conforms and the name of the agency that performed the process other than Seller. When parts are serialized, these serial numbers shall appear on the certification. When required, and as noted on the purchase order, all special processing shall be performed by only those vendors approved for special processing and whose names appear on the approved vendors listings for the applicable specifications of the organizations listed below.

- 11a. Boeing approved sources must be used in the performance of special processes on this contract.
- 11b. Honeywell approved sources must be used in the performance of special processes on this contract.
- 11c. Gulfstream approved sources must be used in the performance of special processes on this contract.
- 11d. Raytheon approved sources must be used in the performance of special processes on this contract.
- 11e. Northrop Grumman approved sources must be used in the performance of special processes on this contract.
- 11f. Lockheed Martin approved sources must be used in the performance of special processes on this contract.
- 11g. Bell Helicopter approved sources must be used in the performance of special processes on this contract.
- 11h. General Dynamics Corp. approved sources must be used in the performance of special processes on this contract.
- 11i. MD Helicopters approved sources must be used in the performance of special processes on this contract.
- 11j. Hamilton Sundstrand approved sources must be used in the performance of special processes on this contract.
- 11k. Kaman Aerospace approved sources must be used in the performance of special processes on this contract.
- 11l. BAE Aerospace approved sources must be used in the performance of special processes on this contract.
- 11m. Traceability to the individual performing the process.
- 11n. Sikorsky Aircraft approved sources must be used in the performance of special processes on this contract.

### 12. HEAT TREAT REPORT

Each shipment shall be accompanied by a legible and reproducible copy of detailed heat treatment cycle used.

### 13. REPORT OF DISCREPANCY – VRMR and SCRAP

Departure from drawings, specifications or other Purchase Order requirements shall be reported to Meggitt Airdynamics via completion of a Vendor Request for Material Review - VRMR. The supplier shall submit a VRMR form, available from the buyer, to Meggitt Airdynamics within five working days. The form shall be submitted to your buyer for further disposition. At no time is known discrepant material to be shipped to Meggitt Airdynamics with or without verbal instructions from any Meggitt Airdynamics employee. Upon disposition of USE AS IS the VRMR will be returned to you for inclusion with the product for shipment to Meggitt Airdynamics. Discrepant product sent to Meggitt Airdynamics without the completed and dispositioned VRMR will be subject to rejection by Meggitt Airdynamics. Scrap from machine shops that is Meggitt furnished material shall be returned to Meggitt and indicated as scrap on a packing slip. Meggitt's allowable scrap rate is 1 piece or 3%, rounded to the nearest

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whole number. Suppliers exceeding the allowable scrap rate will be charged for the cost of the furnished material exceeding the limit. A VRMR does not apply to scrap.

### 14. ELECTRONIC DATA SUBMISSION [EDS]

Supplier shall submit by electronic mail [e-mail] in files searchable Adobe Acrobat [.pdf] format all part shipping documentation, including pack slip / invoice, all required certs, test reports, First Article Inspection Reports [FAIR], Final Inspection Reports [FIR], etc. on the same day shipped. Email address: [MFC-MAIL-QUALITY@MEGGITT.com](mailto:MFC-MAIL-QUALITY@MEGGITT.com). Hardcopies of all applicable shipping documentation must still be submitted with part shipment.

### 15. FABRICATION DOCUMENTS

Supplier and sub-tier fabrication travelers and work orders shall be maintained for each part or assembly and shall be available for Government audit upon request. These fabrication documents shall contain as a minimum the following:

- a. Part nomenclature and identification number.
- b. Drawing number and specification, including revision level.
- c. The name, part number and calibration status of tooling, jigs, fixtures and fabrication equipment used to fabricate the part.
- d. Inspector's stamp or signature and date for each inspection.
- e. Operator's stamp or signature and date for each fabrication operation.
- f. Packaging/handling/storage direction and inspection verification.

### 16. REVIEW OF SUPPLIER'S DOCUMENTATION

The following data and documents in vendor's format shall be available for review by Meggitt Airdynamics at pre-shipping Source Inspection, if required, and shall accompany the hardware when it is shipped to Meggitt Airdynamics. This is not an all-inclusive list, but should be considered the minimum requirements.

- a. Material Certifications and Test Reports [physical and chemical].
- b. Inspection data consisting of the following as a minimum:
  - ▶ Actual measured values for 100% of the feature characteristics identified on the drawing.
  - ▶ Identification of traceable inspection tools and equipment used to verify acceptance.
  - ▶ Traceability to the individual performing the inspection.
- c. Ultrasonic inspection certification to MIL-STD-2154, Class A.
- d. NDT Test Personnel Certification.
- e. Charts or other time/temperature data records for required processes.
- f. Non-conformance reports.
- g. Certification of Conformance.

### 17. TIME AND TEMPERATURE SENSITIVE MATERIAL

Time and temperature storage conditions must be attached to the packing sheet and accompany each shipment to be delivered hereunder. The cure date and/or the item shelf life [expiration date] must appear on any certifications and the item container as appropriate. Materials shipped must have at least 80% of the specified shelf life remaining when received at Meggitt Airdynamics.

### 18. INCORPORATED INTO CLAUSE # 5

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**19. INSPECTION REQUIREMENTS**

- 19a. First Article Inspection:** The supplier shall perform a First Article Inspection and provide documentation in accordance with specification SAE AS9102 when one of the following applies: 1] A first time supplier; 2] New product representative of the first production run 3] A change in design; 4] A change in location, process, inspection method, material, or tooling; 5] A lapse in production for two years. The First Article Inspection Report [FAIR] must include all blueprint notes and dimensions. The supplier must use the FAIR forms contained within the SAE AS9102 specification and an itemized drawing must be included. The complete FAIR must accompany the part[s] shipment.
- 19b. Final Inspection Report:** A Final Inspection Report for the lot submitted is required and shall contain ANSI Z1.4 sampling of all blueprint dimensions and notes to a 4.0 AQL. The Final Inspection Report must accompany the part[s] shipment.
- 19c. Foundry Control:** A full Foundry Control sample shall be submitted prior to release of production castings. Foundry Control shall consist of, but not be limited to Material Analysis, both Chemical and Physical, NDT Testing, and Dimensional Inspection. The Foundry Control sample must accompany the part[s] shipment and must be identified as such and include all required supporting documentation.

**20. WELDING PROCEDURES**

Weld Procedures and welder qualification data shall be submitted and approved by Meggitt Airodynamics PRIOR to performance on this purchase order.

**21. QUALIFIED PRODUCTS LISTINGS**

All supplies and services rendered on this Purchase Order shall have been previously qualified and be listed on the applicable Qualified Products List [QPL]. No substitutions are allowable without written authorization from Meggitt Airodynamics.

**22. IDENTIFICATION AND SERIALIZATION**

All hardware shall be identified. Identification shall be in accordance with drawing requirements. When identification is not specified, the supplier shall select an appropriate method.

When required by the purchase order, serialization shall be in accordance with drawing requirements. Contact Meggitt Airodynamics Quality Department for assignment of proper sequence of serial numbers. Under no circumstances shall the supplier assign the serial numbers.

**23. MERCURY FREE CLAUSE**

The hardware covered by this purchase order is subject to the prohibition of mercury contamination. At no time shall the products come in direct contact with mercury or its compounds nor with any mercury containing device employing a single boundary. This requirement must be passed on to any subcontractors.

**24. GOVERNMENT FURNISHED MATERIALS**

The materials provided on this purchase order are furnished by the Government. The supplier shall maintain a system that includes: Inspection for transit damage, completeness and type. Periodic inspection for handling damage and deterioration during storage. Functional testing when required. Proper identification and verification of quantity and protection from improper use or disposition. Non-conforming or damaged property shall be reported promptly.

**25. MATERIAL SAFETY DATA SHEETS [MSDS]**

The materials covered by this purchase order are subject special handling requirements. Hazardous materials handling procedures are applicable to this order. Please supply one copy of the Material Safety Data Sheets

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[MSDS] for any hazardous material used in completion of this order. This requirement must be passed on to any subcontractors.

### 26. PACKING FOR SHIPMENT

Unless otherwise specified by the drawing or part specification requirements, all items require protection from physical, environmental, and mechanical damage. Protection shall be by wrapping, cushioning, part compartmentalization, cartonizing, or other means to mitigate shock and vibration during handling and shipment. Part surfaces must be protected at all times. The standard practice for commercial packaging, ASTM D3951, is recommended

### 27. ESD REQUIREMENTS

The supplier shall maintain an effective ESD [Electrostatic Discharge] control system to prevent damage to the supplied item as a result of Electrostatic Discharge. This system shall meet the requirements of DOD-STD-1686 and the applicable Table 1 functions. The control system shall include special handling, labeling, and packaging precautions for delivery.

### 28. SOLDERING REQUIREMENTS

All soldering operations, including inspection, shall be performed in accordance with the following standards, as applicable:

- ▣ ANSI/J-STD-001
- ▣ MIL-STD-2000
- ▣ NHB 5300.4

### 29. WORKMANSHIP

Workmanship for electrical items shall be in accordance MIL-HDBK-454, Requirement No. 9.

### 30. SPC REQUIREMENT

Statistical Process Control [SPC] is an integral part of the contract and shall be employed at all production phases. All data collected must remain on hand as specified by the terms and conditions of this purchase order. All data must be conveyed to Meggitt Aerodynamics upon request.

### 31. NOTIFICATION

Supplier shall notify Meggitt Aerodynamics of any changes in product and/or process definition, and where required, obtain Meggitt Aerodynamics approval.

### 32. FLOWDOWN OF REQUIREMENTS [QUALITY AND ENVIRONMENTAL]

Supplier shall flow down the applicable requirements in the purchase order to sub-tier supplier where required, including key characteristics, when it is controlled by the supplier.

Supplier and their subcontractor shall comply with all local, state, federal environmental regulations and our Environmental and Quality policies that are available at our website, [www.Meggair.com](http://www.Meggair.com) under the QMS/EMS link.