

Metallizing Service Company Holdings, LLC

11 Cody Street & 144 South Street
Elmwood, CT 06110

Purchase Order Quality Clauses

MSC's Purchase Order Quality Clauses are implemented to manage impact and risk of products purchased and work transferred/subcontracted for our customers to our External Providers. The supplier shall comply with MSC's specific requirements for control of work transfer. If any of the contract requirements and/or applicable specifications and/or requirements are not clearly understood, contact MSC immediately. By acknowledgment of this purchase order, you the external provider, agree to the following:

1.0 QUALITY AND INSPECTION SYSTEM

Inspection of your product must meet the requirements of our P.O., drawing and associated specification(s) and be 100% verified before sending completed item(s) back to us. Documented evidence of this conformity shall be maintained in a test report.

External providers (suppliers - subcontractors) must maintain a Quality Management System that meets the requirements shown in Table 2, QMS Certification Requirements and of AS13100. For suppliers with a third party QMS quality system certificate, revocation of the certificate requires *immediate* notification of Metallizing Service Company purchasing or Quality Departments. Notification to MSC applies to not only your QMS but to your other required certifications and approvals associated to the process, to ensure they remain valid.

MSC must be notified of any change in quality leadership or reporting structure, change in scope, name, address, or approval status of QMS registrations (Table 2), applicable Production Organization holder approvals, and special process accreditations, MSC shall assess the impact and implement appropriate mitigation actions. This includes notification to the primary customer as appropriate.

For AS9100 certified Suppliers, the OASIS database, and the OASIS NG (Next Generation) Feedback Process shall be used.

1.0.a Training and Competence of Personnel

External providers (suppliers or subcontractors) are responsible to ensure required training and competence, including any required qualification of persons.

1.1 Processes, Products and/or Services you will be providing include the identification of relevant technical data (specifications, drawings, process requirements and/or work instructions). If any of this information needs to be clarified, please contact us immediately. MSC and your company agree on the need to flow down to external providers applicable requirements including customer requirements. You are also in agreement with MSC on the need to provide test specimens for inspection/verification, investigation, or auditing;

2.0 CERTIFICATE OF CONFORMANCE

A certificate of conformance shall accompany each shipment of material defined in the purchase order. The certificate of conformance shall be legible and at a minimum include the Metallizing Service Company purchase order number, part number and Revision Letter (unless otherwise specified on the Purchase Order the revision letter must be the latest revision in effect at time of shipment), quantity, the Metallizing Service Company Work Order Number or when specified the Metallizing Service Company material lot number (when purchaser supplied material) and the mill heat number when supplier supplied material. When multiple lots of material are used in completing a shipment, parts shall not be mixed and all material lot numbers or mill heat numbers shall be reported. When processing is performed against a Work Order, parts shall not be mixed and traceability shall be maintained to the Work Order.

All material and processing must be performed/certified to the latest revision of the drawings and specifications in effect at the time of shipment.

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3.0 CHEMICAL AND PHYSICAL TEST REPORTS

For raw material shipments, or supplier supplied material, physical and chemical test report certifications shall be supplied with each shipment. Test reports shall be legible and include the material designation, specification, and revision letter (material must be certified to the latest revision in effect at the time of shipment), results of all specified testing requirements. The material shall be certified compliant to the relevant OEM(s) specifications.

4.0 SAMPLING TO ANSI/ASQC Z1.4

Inspection shall be 100% unless prior approval is obtained from MSC. Sampling inspection, when authorized and when less than 100% shall be based on the most current version of ANSI/ASQC Z1.4

5.0 FIRST ARTICLE INSPECTION

First Article Inspection is required on a part representative of the production process to be used in the manufacture of these parts. A copy of the First Article documentation is to accompany the first shipment of parts. If 12 months has elapsed since the last shipment of this part number, First Article Inspection is again required. Also, MSC may perform verification or validation activities that the organization or its customer intends to perform at the external providers premises.

6.0 APPROVALS

External providers (suppliers or subcontractors) will supply MSC with copies of any of your required approvals as needed by OEM, specifications, or other requirements, of products and services; methods, processes, equipment; the release of products and services. All MSC's External Providers agree on the need to notify the organization of changes to processes, products, or services, including changes of their external providers or location of manufacture, and obtain the organization's approval. The supplier shall notify the organization of any significant change in QMS or business operations.

6.0.a Performance Monitoring

MSC applies control and monitoring of on time delivery and quality performance on its external providers (suppliers or subcontractors). This evaluation is conducted on an ongoing basis and you will be contacted should there be any concerns, questions or if notification is required should your status fall into the unapproved category.

6.0.b Communications

MSC requires external providers interactions with the organization to support integrity and quality of performance for products or services associated with this purchase order. This includes notification prior to shipment of any possible concerns related to nonconformance. All external providers agree to the need to notify the organization of nonconforming processes, products, or services and obtain approval for their disposition.

6.1 APPROVED INSPECTION PLAN

Supplier inspection shall be in accordance with the Metallizing Service Company approved inspection plan and/or flowed down requirements, for the affected part number. External providers are responsible for test, inspection, and verification (including process verification).

6.2 Verification Activities

Where MSC delegates verification activities to you the supplier, usage of customer defined delegated product release verification shall only be further delegated if it has been formally approved by MSC or primary customer as appropriate.

Where MSC delegates product release, delegated qualification shall require the completion of training for self-release delegates. Supplier Self Release Training Requirements may be implemented to satisfy this requirement (reference AS13001, 9117).

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7.0 STATISTICAL PROCESS CONTROL

Statistical Process Control that is required during the manufacture or processing of the item(s) for which this clause is called out. SPC shall be in accordance with a plan submitted to and approved by Metallizing Service Company Quality Assurance. MSC will flow down the requirements when applicable so you can apply the use of statistical techniques for product acceptance and related instructions for acceptance by the organization.

8.0 SPECIAL PROCESS APPROVAL

Special processes such as heat treating, grinding, peening, non-destructive testing, etc. may require approval by Metallizing Service Company or the relevant prime OEM prior to the special process being performed. The PO holder shall only process parts or services with equipment, procedures, processes and personnel approved to the requirements of the OEM specification. MSC shall flow down special requirements, critical items or key characteristics as required. MSC and its subcontractors/suppliers understand the need to use customer-designated or approved external providers, including process sources (for example: special processes)

The Certificate of Conformance shall include the specification number and revision of all special processing performed. Special processes, once approved, may not be changed without Metallizing or its customer's approval of the changes.

9.0 SURVEY/AUDIT RIGHTS

Metallizing Service Company and/or regulatory agencies shall have the right to conduct surveys and perform surveillance of the supplier's and sub-suppliers' facilities to evaluate their capability to comply with the requirements necessary to conform to contractual requirements.

10.0 RECORD RETENTION

Supplier shall retain all records for 40 years pertaining to material, manufacturing processes, special processes, testing and inspection. Notify Metallizing Service Company prior to destruction. Your company and MSC agree on the need to retain documented information, including retention periods and disposition requirements.

11.0 TEST AND INSPECTION REPORTS

Test and inspection reports as required by the applicable procurement specification must accompany each shipment.

12.0 DEVIATION TO PURCHASE ORDER REQUIREMENTS

A Purchase Order Deviation Notification (PODN) is to be initiated by the Seller for any deviation from drawings, specifications or other Purchase Order requirements and must adequately describe such deviations, including a complete description of the cause and corrective action to prevent recurrence. The PODN shall be submitted to the Metallizing Service Company Buyer who will initiate the MRB Review at Metallizing. A copy of the completed PODN will be returned to the Seller, showing results of the Material Review. Seller shall not ship a discrepant item reported and submitted on a PODN until the Material Review has dispositioned the item.

The Seller shall refer to the serial number of the PODN on each shipping document which covers items in the PODN. Items shipped on a PODN must be segregated from other items to permit separate identification to be maintained.

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12.1 Notification of deviations is to be issued within 24 hours of suspect nonconforming product having been shipped regardless of destination. (Reference to P&W's ASQR-01 section on 'Control of Nonconforming Product')

13.0 COUNTERFEIT MATERIAL/PARTS

The supplier shall plan, implement, and control counterfeit part prevention processes in accordance with AS6174 or AS5553, as applicable. The supplier shall ensure that the counterfeit part prevention process includes a mechanism for reporting counterfeit parts to the organization's purchasing representative within 3 working days of it being confirmed.

Use of substitute or Counterfeit Material/Parts is strictly prohibited. All MSC's External Providers agree on the need to prevent the use of counterfeit parts or materials. Attention to the counterfeit issue requires everyone in the industry and supply chain to support in combating and prevention.

13.1 FOD Prevention

The supplier shall establish and maintain an effective FOD prevention program that meets the requirements of AS9146.

14.0 INTERNATIONAL TRAFFIC IN ARMS REGULATION (ITAR) and EXPORT ADMINISTRATION REGULATION (EAR)

All Customer Documents provided may contain information subject to the International Traffic in Arms Regulations (ITAR) or the Export Administration Regulation (EAR). Transfer of any Technical Data by any means to a foreign person or foreign entity, whether in the United States or abroad, without first complying with the export license requirements of the ITAR and/or the EAR is against the law and in violation of the terms of Customer Documents. By agreeing to accept any PO, Supplier certifies to Metallizing Service that Supplier has not violated any ITAR and/or EAR laws in the fulfillment of this PO or any subsequent or previous PO. Supplier shall be liable for any ITAR related penalties or costs associated with Suppliers Deliverables.

15.0 OUTSIDE CALIBRATION SERVICE PROVIDERS

Requirement for annual eye exams for third party calibration technicians:

Unless otherwise specified, procedures shall be implemented to ensure that eye examinations, including visual acuity and color vision, as applicable, are administered by a medically qualified / trained person to all individuals performing visual inspection, other product acceptance activities and/or M&TE calibration that require visual acuity.

- Intervals shall not exceed one year.
- Individuals shall be tested in at least one eye, either corrected or uncorrected.
- Color Perception testing is required one time only. Individuals shall be capable of adequately distinguishing and differentiating colors used in the method for which certification is required, the process being performed or inspection activity.
- Records shall be retained for everyone.

Note: Vision tests may be substituted for the options listed in the Table below providing the equivalence is verified and documented by a licensed optometrist or ophthalmologist.

Individual performing ...	Shall be compliant with minimum vision requirements of
Visual inspection (i.e. calibration, non-weld, inprocess, layout, dimensional)	Near vision requirements of <ul style="list-style-type: none"> • Snellen 14/18, (20/30), or • Jaeger 2

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16.0 RIGHT OF ACCESS/ENTRY

As a MSC External Provider, you agree for the need to have the right of access by the organization, their customer, and regulatory authorities to the applicable areas of facilities and to applicable documented information, at any level of the supply chain. If your company is not in agreement with this you must contact us immediately so we can develop a risk analysis and mitigation plan to be implemented between MSC and you the supplier to deal with any restrictions to right of access to your facility.

17.0 Awareness

Ensure that persons are aware of:

- their contribution to product or service conformity
- their contribution to product safety
- the importance of ethical behavior

Table 2 - QMS Certification Requirements

ORGANIZATION TYPE	QMS APPROVAL (Minimum Requirements)
Type 1: Make to Print and Type 2A: Design and Manufacture. Manufacture, inspect, test, and certify the conformance of semi-finished and/or finished products (installed on aerospace engines or a component of such a product) to proprietary engineering drawings whether customer design, or organization design.	AS9100 registration.
Type 2B: Design only. Contracted Design Responsible Organization/Partner/Supplier Tasks Organizations.	As defined by Customer's requirements.
Type 3: Distributor.	AS9120 registration.
Type 4: Special Process (2.3). As part of an Organizations manufacturing scope and/or Special Process Houses.	Nadcap or Customer's requirements.
Type 5: Raw Material. Manufacture, inspect, test, and certify the conformance of Raw Material to proprietary engineering specifications.	ISO 9001 registration.
Production Shop Assist Only. Offload of planned manufacturing operations.	Per Organizations Requirements based upon scope of work, unless specified by the customer.
External Calibration or Laboratory Service Provider.	ISO/IEC 17025 or National Equivalent, e.g., UKAS, COFRAC, NIST.
Industry Standard Part or Industry Standard Raw Material Manufacture.	ISO 9001 registration.
Castings and Forgings Produced to a Proprietary Design.	AS9100 registration.