



## Purchase Order Quality Requirements

The following Purchase Order Quality Requirements (POQR) shall become an integral part of the purchase order, and are supplemental to the current terms and conditions of the purchase order. It is the responsibility of the Supplier to review those POQR which are applicable to the product or service they are providing for the purchase order (see POQR table on last page for guidance).

### 1. WORKMANSHIP STANDARD

Materials provided for the purchase order shall conform to the requirements defined in applicable drawings, specifications, statutory and regulatory requirements and other industry standards as referenced on the purchase order. The following criteria are complementary to the aforementioned requirements.

- (a) Workmanship criteria for raw materials (steels, aluminum, copper):
  - a. Materials shall be free from visual defects such as tears, porosity, cracks or delamination.
  - b. Burnouts shall be free from excessive kerf and slag. Slight imperfections to burnout edges resulting from "lead-in" or start of the laser cut are typical, and are not considered defects.
  - c. When grain direction is not specified, raw material shall be nested to maximize usage.
- (b) Workmanship criteria for fabricated materials and assemblies:
  - a. Fabrications or formed metals shall be free of burrs, fractures and foreign objects imbedded in material from the forming equipment.
  - b. Weld fabrications shall be free from harmful defects (cracks, voids, porosity, undercuts and gaps). Welds shall not be ground unless specified on the drawing. Good practices shall be used to keep distortion at a minimum.
  - c. Machined items and assemblies shall be free of burrs, machining chips, cutting fluids, and other foreign object debris (FOD). Cosmetic surfaces of machined parts shall be free of undesired tooling marks and damage from material handling and transport.
- (c) Workmanship criteria for protective coatings and ornamental finish
  - a. Cosmetic and/or critical-to-function surfaces shall be free of defects from material handling such as dents, gouges and scratches.
  - b. Cosmetic surfaces with coating such as chrome, paint or anodize shall have uniform finish free of defects (scrapes, gouges, chips, and undesired contact marks from processing)
  - c. Galvanized materials shall be free of defects such as embrittlement, delamination, plugged holes and drainage spikes. Good practices shall be used to utilize drain holes to keep puddling at a minimum.

### 2. PACKING REQUIREMENTS

Unless otherwise specified on the purchase order, the following requirements are mandatory:

- (a) Prior to packaging, items shall be clean and free from foreign matter. Critical functioning or close tolerance surfaces shall be cleaned to insure removal of corrosion, soil, grease, residues and fingerprints, perspiration or other acid and alkali residues.
- (b) Material not inherently resistant to corrosion shall be inhibited with a suitable medium.
- (c) Items shall be packaged to the extent necessary to provide protection from the hazards of transport, contamination and physical damage encountered in general handling, shelf storage, and issue.
- (d) Material must have appropriate identification which can be referenced to shipping information.

### 3. MATERIAL IDENTIFICATION AND TRACEABILITY

Materials provided for the purchase order require appropriate identification, and traceability to the origin of manufacture. Supplier shall provide a certified material test report (CMTR) at the point of delivery or submit via email to [stillwaterpurchasing@stlwt.com](mailto:stillwaterpurchasing@stlwt.com).

CMTR should include the following information:

- (a) Heat number. Material manufacturers may identify material in a number of ways; lot, coil or other identifying numbers, but ultimately CMTR shall identify material with a heat number.
- (b) Grade of material.
- (c) Material specifications. CMTR shall certify that raw material meets the appropriate American Society for Testing and Materials (ASTM) or American Society for Mechanical Engineers (ASME) material product specification.
- (d) Material dimensions. CMTR shall identify the applicable dimensions of the raw material. In the case of plate material, this would be the thickness. For round material, the diameter. For flat bar, the thickness and width. This information shall match the purchase order requirement.
- (e) Mechanical properties and chemical analysis. CMTR shall list the detailed requirements that the raw material must meet to be certified to that material specification, grade and heat number.
- (f) Applicable heat treatment. Depending on the material, there may be other requirements in the material specifications. For example, 300 series stainless steels require a specific heat treatment which must be recorded on the CMTR.
- (g) Certified mill signature. CMTR shall be certified with the signature of a responsible employee of the foundry or mill producing the raw material.
- (h) Country of origin. The CMTR must identify the country of melt and manufacture.

In the event where raw material is identified as a significant operational risk, Stillwater reserves the right to have any advertised materials tested to validate the accuracy of the CMTR. If the results of such testing determine materials to be noncompliant, it is the responsibility of the Supplier to replace noncompliant material at Supplier's expense.

### 4. DFARS/ FARS COMPLIANCE REQUIREMENTS

All materials provided for the purchase order shall be manufactured in the USA, or in a qualifying country listed\* in the Code of Federal Acquisition Regulations System, *Title 48 Chapter 2 Subchapter D Part 225.872 Contracting with qualifying country sources*. Any exception must be previously authorized by a Stillwater representative, or stated on the relevant PO. Any materials that are not compliant will be rejected and returned at supplier's expense.

\*Note: Suppliers are encouraged to verify the current listing of DFARS qualifying countries in effect at the time of the order placement as the list is subject to change.

### 5. CERTIFICATE OF CONFORMANCE

A Certificate of Conformance (C-of-C) is required with each shipment of this item. The C-of-C shall contain the P/N(s) listed on the Purchase Order, the name of an authorized Quality Assurance representative of the Supplier, and will read substantially as follows: "Materials and processes, including special processes, used to produce the item(s), components, parts, described on the Purchase Order conform to all Purchase Order requirements, referenced specifications or special requirements". Certificates may be submitted in hard copy with shipment of items, or emailed to [stillwaterpurchasing@stlwt.com](mailto:stillwaterpurchasing@stlwt.com)

### 6. RoHS/ REACH COMPLIANCE

Materials and processes used in the manufacture of materials provided for this purchase shall be compliant to the current list of RoHS restricted substances per directive 2015/863/EU and compliant to EU/ REACH 1907/2006 per current SVHC listing. Supplier shall certify via material declaration or certificate of conformance that items have been manufactured in accordance with these requirements.

Stillwater reserves the right to have any advertised RoHS and/ or REACH compliant materials tested for compliance. If the item is determined to be noncompliant, it is the responsibility of the Supplier to replace or correct noncompliant material at Supplier's expense.

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## Purchase Order Quality Requirements

### 7. MATERIAL REVIEW

Nonconforming material supplied for this purchase order must be processed in accordance with a documented system for the control, review and disposition of nonconforming material. If, after shipment of product or service to Stillwater Technologies, the Supplier identifies any actual or potential nonconformity with product or in the processes used in the manufacture of product supplied to Stillwater Technologies, the Supplier shall notify Stillwater Technologies purchasing representative.

### 8. MATERIAL REVIEW BOARD RESTRICTIONS

The Supplier may *rework* nonconforming material in order to restore product functionality and conformity to requirements. However, the Supplier shall not disposition to *repair* or to *use as-is* without prior authorization from Stillwater Technologies. The definition of rework and repair, and the distinction between them, are as follows:

**Rework** The act of processing nonconforming articles in a manner that *assures conformance* with applicable drawings or specifications. *Examples: Stripping and repainting product that did not meet specifications. Adding welds or machining holes in accordance with revision change of drawings or specifications.*

**Repair** In common usage, repair is the act of restoring the *functional capability* of a nonconforming article. *Rework* restores functionality while also being in compliance with design specifications whereas *Repair* restores functionality without actually being in compliance with design. *Examples: Plug welding a hole machined off location, installing a bushing liner sleeve to repair an oversize bore, installing a Keensert or Helicoil insert to repair a damaged threaded hole.*

The Supplier may submit a request via email to the Stillwater purchasing or quality authority. Request must include information such as part number, PO number, and specific description of the deviation.

### 9. REQUIREMENTS FOR SPECIAL PROCESSES

A special process is defined as a manufacturing process where some aspects of the required quality cannot be verified by the subsequent inspection of the processed material alone. Special processes include; welding and the application of protective coatings and treatments (paint and plating). The supplier shall provide a certificate of conformance that contains the name, specification, number, type, and class of the material or process specified in the appropriate specification/ drawing.

Special processes are subject to:

- (a) Requirements being clearly specified for any special process operation, including associated equipment.
- (b) Qualification prior to implementation.
- (c) Control of all applicable aspects of the process, as defined by the process specifications, including special process changes.
- (d) Supplier defining the significant operations and parameters in the process to be controlled during production.
- (e) Records of qualified processes, equipment and personnel.
- (f) Record retention requirement (see item# 13)

### 10. SOURCE INSPECTION AND IN-PROCESS INSPECTION

Stillwater Technologies reserves the right to perform an inspection at the Supplier's facility. Inspection, if deemed necessary, shall be scheduled through Stillwater Technologies representative. In addition to product surveillance, source inspection may include a quality survey of Supplier's system processes and associated procedures. Supplier is responsible for providing Stillwater representative with a suitable work space, and access to support personnel relevant to the process, product or service to be inspected.

Inspection of materials will be prior to the application of epoxy materials, hermetic sealing, or any other permanent closure. The Supplier shall provide scheduling for in-process source inspection coverage. Evidence of in-process inspection will accompany each shipment.

### 11. RIGHT OF ENTRY

Stillwater Technologies LLC, Stillwater customer, and applicable statutory and regulatory authorities shall have the right of entry to Supplier's facilities in order to verify the quality of materials, processes and records applicable to the purchase order. This right extends to all sub tier facilities at any level of the supply chain involved in the purchase order. Such investigations at facilities will be performed jointly by Stillwater Technologies, Stillwater customer, statutory and regulatory authorities, and the subcontractor (as applicable).

### 12. TEST AND INSPECTION DATA

Supplier shall perform inspection of characteristics relevant to the manufacturing process set forth in the applicable specification, drawing or purchase order requirements. Inspection results shall be submitted in hard copy with shipment of parts, or emailed to [stillwaterpurchasing@stlwr.com](mailto:stillwaterpurchasing@stlwr.com).

Test and inspection data can be recorded on the supplier's own inspection form, or Stillwater-provided inspection form. Inspection report shall contain the following information:

- (a) Part number and revision.
- (b) Stillwater P.O. number.
- (c) Applicable dimensional criteria and actual measurements.
- (d) Signature and date

Measurement and test equipment used in the performance of test and inspection shall be maintained per Supplier's calibration system.

Note: When the use of statistical techniques for product acceptance is applicable, supplier shall also provide statistical data along with description of the measurement system and the related instructions employed for validation and verification.

### 13. SUPPLIER MANAGEMENT OF STILLWATER TECHNOLOGIES PRODUCT DATA RECORDS

Supplier records shall be identifiable, legible and maintained as appropriate to ensure easy access, retrieval and protection during the retention period. Retention period for product data for Stillwater Technologies products is a minimum of ten (10) years, or other as defined by contract. Records shall be made available to Stillwater upon request.

### 14. USE OF BROKERS FOR PURCHASE OF COMPONENTS

Unless authorized by Stillwater purchasing representative in advance of purchase order, the Supplier shall procure all electronic and electro-mechanical components from the Original Equipment Manufacturer (OEM)/ Original Component Manufacturer (OCM). Supplier shall include and flow down this requirement to all sub tier suppliers of such components.

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### 15. PREVENTION OF COUNTERFEIT AND SUSPECT PARTS

A counterfeit part is defined as a part produced or altered to resemble a product without the authority or right to do so, with the intent to mislead or defraud by presenting the imitation as original or genuine. Suspect part is a part in which there is an indication by visual inspection, testing, or other information indicating the item may have been misrepresented by the Supplier or Manufacturer. Supplier shall have a process in place for the prevention, identification and reporting of suspect/ counterfeit products.

### 16. SHELF LIFE, HAZARDOUS MATERIAL AND SDS REQUIREMENTS

Materials with a limited shelf life shall be supplied with an effective date of manufacture and date of expiration, and must have, at time of receipt at Stillwater, have a minimum of 75% of shelf life remaining. Supplier shall provide a Safety Data Sheet (SDS) with every shipment of such materials.

### 17. CHANGES TO DESIGN, PRODUCT, PROCESS OR SERVICE

Supplier to notify Stillwater of any changes to supplier design, products, processes, or services that could potentially effect; (a) physical and/ or functional interchangeability, (b) Identification and configuration, (c) reliability, (d) product safety, and (e) compliance with applicable statutory or regulatory requirements.

### 18. FOREIGN OBJECT DEBRIS (FOD) / FOREIGN OBJECT ELIMINATION (FOE)

Suppliers involved in the processing of finished manufactured products and assemblies should have a FOD/FOE program in place that includes a minimum of the following elements: FOD awareness, FOD prevention thru general housekeeping practice, detection and removal of FOD resulting from supplier process, and reporting of any FOD-related damage to Stillwater purchasing or quality authority.

### 19. SUPPLIER QUALITY MANAGEMENT SYSTEM

When applicable per product or service, Supplier shall maintain a documented quality management system (QMS) that conforms to ISO 9001, AS9100, or other as appropriate. In the absence of third-party validation, Stillwater Purchasing or Quality representative may conduct an on-site audit or survey of supplier QMS.

Supplier shall ensure that those employees, who have an effect on the quality of the products and services provided to Stillwater, are made aware of;

- (a) Their contribution to product and service conformity.
- (b) Their contribution to product safety.
- (c) The importance of ethical behavior.

### 20. SPECIAL REQUIREMENTS, KEY CHARACTERISTICS, AND CRITICAL ITEMS

When applicable, purchase order information, drawings and/ or other instruction may define specific controls to manage special requirements, key characteristics, and critical items to ensure product conformity and safety. Supplier must review and understand prior to PO acceptance.

*Special Requirements:* any requirements identified by Stillwater or Supplier which have high risks of not being met. An example may be a requirement for a product or service that may push the Supplier to the limit of their capability.

*Key Characteristics:* attributes or features whose variations have significant effect on fit, form, function, performance, service life, or producibility that requires specific actions to control the variation. Key characteristics may be defined on drawing, control plan, or FMEA.

*Critical Items:* Those items having significant effect on the provision and use of the products and services; including fit, form, function, performance, service life, producibility and safety; that require specific actions to ensure they are managed accordingly. Examples are; safety critical items, fracture critical items, mission critical items, key characteristics, etc.

### 21. CONFLICT MINERALS

Stillwater Technologies fully supports the objectives of the U.S. legislation and the SEC rules on the supply of "Conflict Minerals", and is committed to the responsible sourcing of "Conflict Minerals" from the Democratic Republic of Congo ("DRC") and adjoining countries. Conflict Minerals include; tin, tantalum, tungsten and gold, or "3T&G". We require our suppliers to fully support this effort and perform the necessary due diligence in order to avoid the use of 3T&G that have funded armed groups in the DRC region to further the goal of ending the human rights violations in the region.



## Purchase Order Quality Requirements

POQR Table

Supplier Product or Service	Applicable Purchase Order Quality Requirements
Raw materials (plate, bar, and round stock including burnouts, forms and fabricated materials)	POQR #1(a), #2(c) and (d), #3, #13 #15, and #19 are applicable to all purchase orders unless specified otherwise. POQR #4 is applicable when purchase order requires DFAR complaint materials. POQR #16 is applicable when purchase order requires SDS POQR #20 is applicable when drawings or other PO information define special characteristics, critical items and key characteristics related to forms and fabrication process POQR# 21 when applicable for traceability of "Conflict Minerals" (3T&G)
Welding (structural welding of steel and aluminum)	POQR #1(b), #2(c) and (d), #7, #8, #9, #13, #17, #18 and #19 are applicable to all purchase orders unless specified otherwise. POQR #1(a) and #3 are applicable when weld supplier is also providing material. POQR #4 is applicable when weld supplier is providing material and purchase order requires DFAR compliant materials. POQR #10 and #11 may be applicable for certain purchase orders to satisfy customer flow down requirements, and shall be communicated in advance by purchasing representative. POQR #20 is applicable when drawings or other PO information define special characteristics, critical items and key characteristics related to the welding process.
Machining (grinding, wire-EDM, turning, gear-cut, and milling)	POQR #1(b), #2, #7, #8, #13, #18, and #19 are applicable to all purchase orders unless specified otherwise. POQR #1(a) and #3 are applicable when machining supplier is also providing material. POQR #4 and #15 are applicable when machining supplier is providing material and purchase order requires DFAR compliant materials. POQR #5 and #12 are applicable when purchase order requires inspection data or certificate of conformance with shipment of item. POQR #10 and #11 may be applicable for certain purchase orders to satisfy customer flow down requirements, and shall be communicated in advance by purchasing representative. POQR #20 is applicable when drawings or other PO information define special characteristics, critical items and key characteristics related to the machining processes
Heat Treat	POQR #2(a), (c) and (d), #9, #13, #19 are applicable to all purchase orders unless specified otherwise. POQR #5 is applicable to purchase orders when certification is required. Certain purchase orders may require furnace chart in addition to C of C.
Plating and Coatings (chromate, anodize, hard coat, paint, zinc plating, nickel plating, chrome, hot-dip galvanizing and laser-coating)	POQR #1(c), #2(a), (c) and (d), #5, #7, #8, #9, #13, #17, #18, and #19 apply to all purchase orders unless specified otherwise. POQR #6 is applicable when purchase order calls for RoHS/ REACH compliance. POQR #10 and #11 may be applicable for certain purchase orders to satisfy customer flow down requirements, and shall be communicated in advance by purchasing representative. POQR #20 is applicable when drawings or other PO information define special characteristics, critical items and key characteristics related to the process
Hardware Tooling	POQR #2(c)(d) and #15 are applicable to all purchase orders unless specified otherwise. POQR #3 and/ or #5 are applicable to purchase orders when certification is required. POQR #4 is applicable for hardware when purchase order requires DFAR complaint materials. POQR #6 is applicable for hardware when purchase order requires compliance to RoHS/ REACH.
Electronic, Electrical, Mechanical Components (Motors, power supply, etc...)	POQR #2(a), (c) and (d), #5, #13, #14 and #15 are applicable to all purchase orders unless specified otherwise. POQR #4 is applicable when purchase order requires DFAR complaint materials. POQR #6 is applicable when purchase order requires compliance to RoHS/ REACH
Chemicals and Compounds Hazardous and Non-Hazardous (paint, coolant, oil, solvent, alcohol, acetone, Loctite, and other industrial compounds)	POQR #2(c) and (d) and #16 are applicable to all purchase orders unless otherwise specified. POQR #6 is applicable when purchase order requires compliance to RoHS/ REACH

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