

# Roush Quality Capability / Procurement Requirements (QCR)

Document ID:	CP-QA003	Revision#:	R26	Issue Date:	10/11/2023
<p>The below list of quality capability / procurement requirements are for both Roush employees and its existing and prospective suppliers when requests for quotations are issued and Purchase Orders are released. Not all requirements apply to every program. The Roush program team is responsible for identifying QCR requirements the supplier is required to comply with and fulfill. Suppliers are cautioned to read each requirement carefully to assure understanding and ask for clarification from the Roush buyer if needed. If a supplier is not capable of fulfilling a QCR requirement, they are required to inform the Roush buyer during the quoting phase. 600 series QCRs are for the Aerospace Industry. 800 series QCR and above are for the Entertainment Industry. Any program can select any of the QCRs beyond the mandatory eight. This list of procurement requirements does not limit a program team from specifying additional requirements when needed (See QCR 500).</p>					
QCR Code	Roush Quality Capability/Procurement Requirements (QCRs) are requirements of the supplier that are included in the RFQ and Purchase Order sent to suppliers. Suppliers must demonstrate they have the capability of satisfying a requirement if it is specified in a RFQ or on a PO.				
Below QCRs are MANDATORY					
100	NO SUBSTITUTION: Substitution is not allowed for materials, part numbers, or processes without prior written approval from the Roush responsible Engineer and written authorization from the Roush buyer.				
110	REVISIONS OF SPECIFICATIONS. Suppliers shall work to the latest written revision of all specifications. Verbal direction is not permitted without written authorization from Roush buyer				
120	PACKAGING and LABELING PLAN REQUIRED PRIOR to PRODUCTION PART APPROVAL. Roush shall approve prior to issuing production PO.				
130	SUPPLIER VERIFICATION PRIOR TO SHIPMENT REQUIRED Ongoing production runs of parts shall be inspected by the supplier per Roush approved control plan. This means all shipments to Roush shall be verified by supplier prior to shipment. Records shall be retained by supplier and available upon customer request.				
135	NOTIFICATION OF ROUSH WITHIN 48 HOURS REQUIRED FOR SHIPPING NON-CONFORMING PARTS. Supplier is obligated to disclose and contact the Roush buyer within 48 hours of discovering nonconforming parts were or may have been sent to Roush				
140	NONCONFORMING MATERIAL. Any parts found with a nonconformance or deviation to the Purchase Order requirements shall be reported with a Roush issued Quality Defect Notice.				
150	RIGHT OF ENTRY. Roush, our customers and regulatory agencies have the right of entry to your facility when necessary, to determine and verify the quality of contracted work, records and material.				
155	NO COUNTERFEIT PARTS OR MATERIALS. Roush expects its suppliers to assure parts or materials are genuine and not counterfeit. (i.e., counterfeit defined as a fraudulent imitation of something else; a forgery)				
Below QCRs are for General Use					
160	FIRST PIECE INSPECTION / VERIFICATION required every time a production setup is taken apart and setup again; moved to different machine; or a machine is repaired. This means the first piece from a new setup must have a full layout inspection to assure conformity before production.				
170	CONFLICT MINERALS. Seller will disclose whether Goods contain any conflict minerals (tantalum, tin, tungsten or gold) as defined under Section 1502 of the U.S. Dodd-Frank Act and its implementing regulations (collectively the "Conflict Minerals Law") that are necessary to the production or functionality of the Goods ("Conflict Minerals"). If Goods contain any Conflict Minerals Seller must assure that those Conflict Minerals are "DRC conflict-free" as defined in the Conflict Minerals Law and provide on request information on Conflict Mineral smelters in the relevant supply chains including whether those smelters are DRC conflict-free. Upon Roush's request, Sellers must report annually the Conflict Mineral Status of Goods supplied to Roush using the CFSI Template and Information. Suppliers are encouraged to support industry efforts to enhance traceability of Conflict Minerals and responsible practices in their global supply chains.				
180	FIRST ARTICLE INSPECTION (FAI). FAI applies to the first delivery for this part number/revision level unless otherwise defined in the Purchase Order. The supplier shall furnish first article sample(s) produced using the material, tooling, processes and planning to be used for subsequent deliveries. The first article shall be tagged and identified as a first article sample, and submitted with a FAI report. The FAI report shall reflect actual readings and show compliance to the drawing, related specifications, and in compliance with AS 9102. When first article acceptance testing is applicable, prior notification must be given to Roush Procurement Quality in time to give Roush the option to witness the test.				
190	FIRST ARTICLE INSPECTION APPROVAL PRIOR TO BEGINING PRODUCTION. Approval required by Roush designated quality rep.				
200	INSPECTION/LAYOUT REPORT. An inspection layout report, identifying the characteristics produced on the purchased part(s) with the applicable inspection results, is required with the shipment. The report is to be signed, or stamped, and traceable to the person performing the inspection. Failure to send inspection/layout report may result in delayed payment and/or quality rating adjustments. 100% inspection of all dimensions is required.				
201	PPAP LEVEL 1 (PSW only)				
202	PPAP LEVEL 2 submission as specified by the Roush Quality Manager (see <a href="http://www.aiag.org/home">http://www.aiag.org/home</a> )				
210	PPAP LEVEL 3 submission as specified by the Roush Quality Manager (see <a href="http://www.aiag.org/scriptcontent/index.cfm?section=home">http://www.aiag.org/scriptcontent/index.cfm?section=home</a> )				
220	PPAP LEVEL 4 submission as specified by the Roush Quality Manager (see <a href="http://www.aiag.org/scriptcontent/index.cfm?section=home">http://www.aiag.org/scriptcontent/index.cfm?section=home</a> )				
225	TOOLING INVOICES - Tooling invoices shall not be submitted until full or final PPAP approval has been granted by Roush. (Interim PPAP approval will not trigger tooling payment)				
230	IMDS required (Go to <a href="http://www.mdssystem.com/">http://www.mdssystem.com/</a> for more information)				
240	Sample Parts required. Quantity to be determined and specified by the Roush Program Manager and called out on the RFQ and PO by Purchasing with Program Management input.				
241	Appearance Approval Required (certain "aesthetic" parts where we have no drawing, but do require Roush's approval of the appearance of a sample part before proceeding with production order.)				
250	CERTIFICATION OF CONFORMANCE (C of C) required and evidence retained by supplier. A certificate of conformance (following the Roush supplied format available in Roush.com) is required stating, "All blueprint and/or specification requirements have been met" and that "inspection records, material certifications and/or special process records (when applicable), are on file and available for review." An authorized agent of the supplier's quality organization, including the agent's title, must sign this certification. This certificate must also contain the Purchase Order number, line item number, release number, part number, revision level, serial, factory or temporary serial numbers if assigned, raw material heat code, quantity shipped and reference to any nonconformance documents. A supplier's packing slip containing the above information is acceptable.				
260	CERTIFICATION OF CONFORMANCE (C of C) required and evidence submitted to customer with C of C. A certificate of conformance (following the Roush supplied format available in Roush.com) is required stating, "All blueprint and/or specification requirements have been met" and that "inspection records, material certifications and/or special process records (when applicable), are included in this package." An authorized agent of the supplier's quality organization, including the agent's title, must sign this certification. This certificate must also contain the Purchase Order number, line item number, release number, part number, revision level, serial, factory or temporary serial numbers if assigned, raw material heat code, quantity shipped and reference to any nonconformance documents. A supplier's packing slip containing the above information is acceptable.				
261	INITIAL SHIPMENT- NEW PART /CHANGE. <a href="#">First shipment of a new part or part number change regardless of reason will require all containers in the shipment to have a "NEW PART" label affixed adjacent to the Roush individual package bar code label</a>				
270	Proof of Inspection: Supplier must furnish proof of prior inspection and acceptance. Proof must include, but is not limited to, a detailed inspection report with an inspection stamp or an inspector's signature.				
280	CERTIFICATION OF CONFORMANCE (following the Roush supplied format available in Roush.com) shall be packaged with the shipment and its location clearly noted on the outside of the packaging.				
290	ROUSH AND/OR CUSTOMER SOURCE INSPECTION REQUIRED. Prior to shipment of materials, parts or services, Roush Purchasing Manager must be notified to schedule Quality Assurance for source inspection and initial acceptance of the shipment. Acceptance does not imply that the shipment will not be rejected upon receiving inspection at Roush should a deviation be found.				
300	SAFETY DATA SHEETS REQUIRED. Supplier/Vendor shall forward Safety Data Sheets, as applicable, with, or prior to, shipment to Roush Industries or email to <a href="mailto:msds@roush.com">msds@roush.com</a>				
310	QUALITY SYSTEM. As a minimum, the supplier shall maintain a quality system that is compliant to ISO 9001 (latest version) Quality Management Systems – Requirements or AS 9100 Quality Systems – Aerospace.				
320	CONTROL OF RECORDS. Records shall be established and maintained to provide evidence of conformity to the QPR's and revision date as stated on the purchase order. Records shall remain legible, readily identifiable and retrievable. Procedures shall be established to define the control necessary for the storage, protection, retention periods and disposal of records.				
330	RETENTION OF RECORDS. Records such as Purchase Orders, Traceability, Approvals of Special Processes, Inspection & Test and Nonconforming Material shall be retained per direction of the buyer and program manager as specified in the RFQ and purchase order.				

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QCR Code	Roush Quality Capability/Procurement Requirements (QCRs) are requirements of the supplier that are included in the RFQ and Purchase Order sent to suppliers. Suppliers must demonstrate they have the capability of satisfying a requirement if it is specified in a RFQ or on a PO.		
340	TRACEABILITY. Traceability shall be maintained from receipt of raw material through finished product. Records and material must be identified by lot number, material type, specification and applicable revision identifier or date of issue, heat number, serial number, etc., as required to maintain traceability. Records shall be maintained on file subject to examination by Roush. If a time limit is not specified, records shall be kept for ten (10) years minimum after final shipment of the order.		
350	MATERIAL CERTIFICATION with supporting evidence is required. A material certification shall be provided with the shipment stating the specification number of the material being supplied as it appears on the purchase order, revision letter, purchase order number, lot code or heat number, serial numbers if applicable, shelf life if applicable, and date of shipment. Actual test results as required by the specifications, such as mechanical test data, chemical properties, hardness, etc., shall accompany the certification. This certification must be signed by an authorized agent of the supplier including the agent’s title.		
360	ROUSH SUPPLIED MATERIAL. When material is supplied by Roush for processing, a certification shall be provided with the shipment stating the material type (e.g., AMS 5662, MSRR 7035), the material heat/lot number and the quantity received as it appears on the Purchase Order. Material substitutions are prohibited without written approval by Roush.		
370	LIFE-LIMITED COMPONENT OR MATERIAL. This Purchase Order contains life-limited components or materials. The supplier shall mark the life information on each container per its respective specification. If life data marking requirements are not covered by specifications, the supplier shall mark each container with date of manufacture and expiration date. Upon receipt by Roush, the remaining useful life must be at least 80% of the total life limit.		
380	ROUSH AND/OR CUSTOMER SOURCE INSPECTION REQUIRED. Prior to shipment of materials, parts or services, Roush Purchasing Manager must be notified to schedule Quality Assurance for source inspection and initial acceptance of the shipment. Acceptance does not imply that the shipment will not be rejected upon receiving inspection at Roush should a deviation be found.		
390	DROP SHIPMENT REQUIREMENTS TO RAW MATERIAL SUPPLIER. On the date of shipment, forward the following documents via fax or email Attention: Purchasing Department <ul style="list-style-type: none"><li>- Signed Bill of Lading as proof of shipment</li><li>- Packing slip, which must reference this purchase order number to consignee as, stated above</li><li>- Material mill certifications</li></ul>		
400	Rework of painted parts -- Maximum of 3 repaints allowed.		
410	Rework or Repairs require Roush approval prior to attempting repairs or reworks of parts.		
420	UL approval required		
421	ITAR (International Traffic in Arms Regulations ) compliance -- This requires the supplier to have a viable ITAR training program and registration with DDTC.		
422	DFARs (Defense Federal Acquisition Regulation Supplement) -- This means any material supplied meets the DFARS requirements.		
423	USA based company -- This means the company must be a USA based corporation.		
424	RETENTION OF RECORDS for 30 years. Records such as Purchase Orders, Traceability, Approvals of Special Processes, Inspection & Test and Nonconforming Material shall be retained for thirty years (30), or per direction of the buyer and program manager as specified in the RFQ and purchase order.		
430	Software suppliers must verify off the shelf software prior to shipment to assure version is correct and in compliance with industry standards for software validation.		
440	Software suppliers must verify custom software prior to shipment to assure conformity to agreed to customer requirements. Roush IT and the Roush customer must approve.		
450	MATERIALS MUST BE OF DOMESTIC (USA) ORIGIN. No substitutions allowed without Roush approval.		
460	PART IDENTIFICATION: Every line item on this order must be individually identified with its part number and revision letter, subject to the methods listed below. If a method and/or location is specified on the drawing, those requirements take precedence. Methods of Marking <ul style="list-style-type: none"><li>a. SAE AS478-2 (Metal Stamp)</li><li>b. SAE AS478-7A (Electrochemical Etch)</li><li>c. SAE AS478-30 (Ink Stamp)</li><li>d. SAE AS478-35D (Bag and Tag)</li><li>e. LASER ETCH AS478-15A</li><li>f. Bar Code label</li></ul>		
461	INITIAL SHIPMENT- NEW PART /CHANGE. First shipment of a new part or part number change regardless of reason will require all containers in the shipment to have a “NEW PART” label affixed adjacent to the Roush individual package bar code label. Please download and use the provided color label template found here: (LINK TBD).		
470	SERIALIZATION: Every line item on this order must be individually serialized starting with serial number MMDDYY0001, where the date is the lot manufacturing date (date of serialization) and 0001 is the serial number within the lot. The location must be adjacent to the part number and subject to Part Identification requirement (see QCR 460 above).		
480	Process Certification: Certification of processes as specified on the purchase order is required for each process lot. Heat Treatment Process Certification must include (but is not limited to) the following: <ul style="list-style-type: none"><li>• Time vs. Temperature</li><li>• Atmosphere</li><li>• Quench Media</li><li>• Hardness results on 100 percent of heat treated components</li><li>• Destructive testing (tensile, core hardness, etc.) as required to verify conformance to the PO, drawings, and specifications.</li></ul> Plating/Coating/Finish Process Certification must include (but is not limited to) the following: <ul style="list-style-type: none"><li>• Pre- and Post-Bake</li><li>• Plating/Finish Certification (Class and Type)</li><li>• Plating Thickness Report</li><li>• Painting Thickness Report</li></ul> Shot Peening Process Certification must include (but is not limited to) the following: <ul style="list-style-type: none"><li>• Shot size, hardness, and material</li><li>• Intensity</li><li>• Percent Coverage</li></ul> Bonding Process Certification must include (but is not limited to) the following: <ul style="list-style-type: none"><li>• Cure Time</li><li>• Adhesive Type</li></ul>		

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490	<p><b>Welding Requirement:</b> Welding must meet the applicable American Welding Society (AWS) Structural Welding Code or equivalent. This includes (but is not limited to) AWS D1.1 for Steel, AWS D1.3 for Sheet Steel, and AWS D1.6 for Stainless Steel. Requests to use codes other than the AWS codes should be approved in advance by Engineering or Quality Assurance.</p> <p>Welding Process Certification must include (but is not limited to) the following:</p> <ul style="list-style-type: none"><li>• Welding Procedure Specification (WPS)</li><li>• Filler metal certification and storage conditions</li><li>• Procedure Qualification Test Report (PQR) [Not required if procedure is prequalified in accordance with AWS D1.1 or D1.6]</li><li>• Certs for shielding gas if specified in customer specific requirements</li><li>• Welder, welding operator, or tack welder qualification test record (i.e., welder's certification). If there are multiple welders on a given part, a weld map identifying who welded what portion is required.</li><li>• Certificate of post-weld heat treatment</li><li>• Visual weld inspection report</li><li>• Weld map – If there are multiple welders on a given part, a drawing layout showing the welds made by each welder is required.</li></ul>				
495	<p><b>SUPPLIER REQUIRED TO HAVE A POLICY FOR COUNTERFEIT ELECTRONIC PARTS AND DETECTION.</b> The purpose of this QCR is to require Roush electronic part suppliers to create a counterfeit electronic parts avoidance and detection policy. References are:</p> <ol style="list-style-type: none"><li>1. SAE Standard AS5553A: Fraudulent / Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition</li><li>2. Defense Federal Acquisition Supplement (DFARS) 252.246-7007, Contractor Counterfeit Electronic Part Detection and Avoidance System</li></ol> <p>Supplier is required to:</p> <ol style="list-style-type: none"><li>1. Secure membership in the Government-Industry Data Exchange Program (GIDEP) site. This means the supplier must identify a point of contract (POC). POC will receive warning messages in his/her email, and should prepare and retain an annual report that is available upon request.</li><li>2. Training / education must be implemented at the supplier to know what to look for. There are several good presentations online that describe the problems and with pictures showing what counterfeit parts look like.</li></ol>				
500	Other Customer specific requirements -- Roush program manager will provide				
Below QCRs are for the AEROSPACE INDUSTRY (but can also be specified for any Roush program)					
600	<p><b>SUPPLIER CHANGE AUTHORITY.</b> Supplier shall notify Roush, purchasing authority in writing immediately of any changes to the characteristics or configuration of the product and/or processes used to manufacture the product. When required, suppliers shall obtain written approval of changes and/or rework methods from Roush purchasing authority or other authorized personnel.</p>				
601	<p><b>SUPPLIER CHANGE AUTHORITY (Aviation AS9100D).</b> Supplier shall notify Roush purchasing authority in writing immediately of any changes to the characteristics or configuration of the product and/or processes or services used to manufacture the product including changes of their external providers or location of manufacture. Suppliers shall obtain written approval of changes and/or rework methods from Roush purchasing authority or other authorized personnel before processing.</p>				
610	<p><b>SUPPLIER CORRECTIVE ACTION.</b> Nonconforming material rejected by Roush and determined to be the responsibility of the supplier requires that the supplier take corrective action to prevent recurrence. Corrective action measures shall include; a determination of the root cause of the discrepancy, determining and implementing corrective action measures and evaluation of the effectiveness of corrective action taken. Suppliers shall maintain records of corrective actions taken. Failure to respond to requests for corrective actions within the specified time frame may affect future procurement and or supplier status/ approval.</p>				
620	<p><b>TEST REPORTS.</b> Each Process Lot shall be accompanied by one (1) legible and reproducible copy of actual test results identifiable with test parameters and product submitted. These reports shall contain the Test/Inspection Stamp of the individual performing the task, or the signature and title of the authorized representative of the agency performing the test.</p>				
625	<p><b>RAW MATERIAL CERTIFICATION VALIDATION -</b> A material certification supplied with raw material shall be validated by duplicating the testing on a random sampling of the material batch with tests conducted by a US based ISO/IEC 17025 accredited test facility. Frequency to be specified by Roush Program Manager or designee.</p>				
630	<p><b>KEY CHARACTERISTICS.</b> Key Characteristic features identified on drawings, purchase orders, or acceptance documentation shall be validated by the supplier. Variable data (actual measurements) of key characteristics and other characteristics specified by Roush shall be provided with each shipment.</p>				
640	<p><b>QUALITY SYSTEM.</b> The supplier shall implement and maintain a quality management system that complies with ISO 9001: 2008, AS9100C or an equivalent system that provides inspection services adequate for providing verification that the product supplied is in full compliance with the purchase order requirements and all applicable specifications. Compliance with these requirements may be subject to audit by Roush. The supplier shall flow down to sub-tier suppliers any applicable requirements contained in the Roush purchasing document /specifications, including key characteristics where required.</p>				
641	<p><b>QUALITY SYSTEM (Aviation AS9100D).</b> The supplier shall implement and maintain an ISO 9001, ISO/IEC 17025,, AS9100 or AS9120 quality management systems (QMS) certified by and accredited registrar or a Roush approved QMS that meets our minimum requirements to be designated "Approved for AS9100 Work." Inspection services must be adequate for providing verification that the product supplied is in full compliance with the purchase order requirements and all applicable specifications must be included in the QMS. Compliance with these requirements may be subject to audit by Roush. The supplier shall flow down to sub-tier suppliers any applicable requirements contained in the Roush purchasing document / specifications, including key characteristics, as required.</p>				
650	<p><b>GOVERNMENT SOURCE INSPECTION.</b> Government Source Inspection (GSI) is required for item(s) on this order. Upon receipt of this order, the Supplier shall promptly notify the Government Representative who normally services its plant so that appropriate planning for Government Inspection can be accomplished.</p>				
660	<p><b>FOD.</b> The supplier shall employ appropriate housekeeping practices to assure timely removal of FOD generated during manufacturing or other related operations. Suppliers shall identify areas that may have a high probability for the introduction of Foreign Objects and implement controls appropriate for the scope of work performed. The supplier shall implement FOD prevention awareness training programs appropriate for the processes required and/or products produced.</p>				
670	<p><b>CONTROL OF SPECIAL PROCESSES.</b> A special manufacturing process is one that generates product characteristics that cannot be monitored and measured using traditional inspection/verification methods. Special process integrity is confirmed through the use of known, validated methods sustained by controlled process parameters. Examples of special processes include, but are not limited to; painting, anodizing, chemical films, plating, soldering, nondestructive testing, welding, brazing, and heat treating. The Supplier shall demonstrate control over these processes to provide assurance of compliance to process specifications and requirements. Copies of special process procedures and certifications shall be made available to Roush upon request. Where the supplier uses facilities outside of their control, any external facilities are subject to the same conditions stated herein.</p>				
680	<p><b>LOT TRACEABILITY.</b> The Supplier shall maintain lot traceability for epoxies, solder, gold and aluminum wire, etc. Records of traceability shall be made available to Roush upon request.</p>				
690	<p><b>CALIBRATION INFORMATION.</b> Supplier's calibration system shall meet applicable requirements of AS9100, ISO 9001, ISO 17025, ISO 10012-1, TS/ISO 16949, ANSI-Z540-1 or MIL-STD-45666 as applicable.</p>				
695	<p><b>DPD COMPLIANCE REQUIRED:</b> All applicable sections of D6-51991 "Quality Assurance Standard for Digital Product Definition at Boeing Suppliers" must be adhered to, including any specified ITAR, MLA, MA, TAA and EAR requirements</p>				
700	<p><b>CERTIFICATE OF CALIBRATION.</b> Certification of Calibration attesting to the accuracy of the items procured on this purchase order shall (if specifically requested) be supplied with each shipment. This certification must contain all the test parameters necessary to demonstrate conformance to the standard and manufactures specifications and shall be traceable to the International System of Units (SI) through NIST or other National Measurement Institutes as applicable.</p>				

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710	HAZARDOUS MATERIAL. Seller shall furnish SDS document and a GHS compliant label on product that indicates hazardous material and type. Example; albetmet, cadmium, lead, hexavalent, chromium, polybrominated biphenyls (PBB), and polybrominated dipenyl ethers (PBDE) or any chemical known to cause cancer.				
720	QUALIFICATION OF PERSONNEL. The Supplier's Quality Management System shall assure all relevant purchase order requirements are met and all applicable processes affecting the final quality of the product in the purchase order were rendered by qualified personnel.				
730	PROPRIETARY INFORMATION. Suppliers and/or Sub-tier suppliers upon receipt of Roush Proprietary Information shall at no time allow Roush's documents outside of their facility or released to another entity without written approval from Roush representative. Supplier's shall comply with Customer Requirements at all times and shall have documented procedures and records. Upon completion or termination of this contract, Seller shall return to Roush all proprietary information, technical data (or destroy the aforementioned information at Roush's representative request) furnished to Seller by Roush pursuant to this contract. At Roush's determination, Roush may direct Seller to return or destroy the data and may require Seller to certify in writing that they have complied.				
740	REVISIONS OF SPECIFICATIONS. Suppliers shall work to the latest written revision of all specifications, drawings, process requirements, inspection/verification instructions and other relevant technical data. Verbal direction is not permitted without written authorization from Roush buyer.				
750	NONCONFORMING MATERIAL. Any parts found with a nonconformance or deviation to the Purchase Order requirements shall be reported with on Roush CF-QA0010 Supplier nonconforming Material Notification form. The supplier shall notify the buyer prior to any "use as is" or "repair" dispositions of non-conformances pertaining to this order. Roush approval requires a written response necessary to determine sufficient root cause and corrective action taken to prevent recurrence of any non-conformances. Nonconforming product shall not be delivered to Roush without prior written approval of the Roush purchasing authority. The Supplier shall promptly notify the Roush purchasing authority of any nonconforming product that may have been previously delivered. The Supplier shall reference the original Roush rejection documentation on the shipping document for any previously rejected items that have been reworked, replaced, or repaired.				
752	ENSURING SCRAP PRODUCT IS UNUSABLE Aviation AS9100D). Nonconforming product must be positively identified and controlled until disposition. Product dispositioned as scrap that is not delivered to Roush shall be made unusable. Scrap product is rendered unusable by appropriate means including mutilating parts by cutting or otherwise altering the configuration to the extent where the parts are not appropriate for use and cannot be mistaken as acceptable product. Some methods for rendering nonconforming product unusable are: - Removal of a major feature - Permanent distortion of part - Cutting or sawing into many small pieces Where nonconforming product is retained for set up operations, key features are removed or other similar actions are taken to ensure product is visibly rendered unusable.				
760	RIGHT OF ACCESS / ENTRY. Roush, our Customers and/or any regulatory or government entities, reserve the right to access the Supplier's facility, the facilities of the Vendor's sub-tier suppliers and/or any member of the Vendor's supply chain that acts as a sub-tier supplier on Roush's orders, during the production of this Purchase Order. Reasons for access may include, but are not limited, to the following: inspection of the item on order, status of items listed on purchase order and review of quality records pertaining to this purchase order.				
770	SUPPLIERS USING SUB-TIERS. Roush Quality Assurance must be notified in writing when a sub-tier to the supplier will be used. This includes Roush pre-approval for sub-tier special processes. Prior to proceeding, the supplier must provide to Roush Purchasing, evidence that the requirements of this purchase order has been flowed down to the sub-tier, including key characteristics when required.				
780	PROOF OF INSPECTION: Supplier must furnish proof of prior inspection and acceptance. Proof must include, but is not limited to, a detailed inspection report with an inspection stamp or an inspector's signature.				
790	CONTROL OF RECORDS - 10 years. Records shall be established and maintained to provide evidence of conformity to the QCR's and revision date as stated on the purchase order. Records shall remain legible, readily identifiable and retrievable. Procedures shall be established to define the control necessary for the storage, protection, retention periods and disposal of records.Records shall be retained for 10 years.				
791	CONTROL OF RECORDS - 20 years. Records shall be established and maintained to provide evidence of conformity to the QCR's and revision date as stated on the purchase order. Records shall remain legible, readily identifiable and retrievable. Procedures shall be established to define the control necessary for the storage, protection, retention periods and disposal of records.Records shall be retained for 20 years.				
792	CONTROL OF RECORDS - 30 years. Records shall be established and maintained to provide evidence of conformity to the QCR's and revision date as stated on the purchase order. Records shall remain legible, readily identifiable and retrievable. Procedures shall be established to define the control necessary for the storage, protection, retention periods and disposal of records.Records shall be retained for 30 years.				
Below QCRs are for the ENTERTAINMENT INDUSTRY (but can also be specified for any Roush program)					
800	G-01 Part Identification: (REQUIRED FOR ALL SUBMISSIONS - EXTERNAL SUPPLIERS ONLY) Pictures showing the PART ID and LOCATION on the part as referenced on the drawing – Includes Bag & Tag items.  At a minimum, the Packing Slip and Packaging shall reference the ordered Part Number (i.e. WDC Number or Part Number) and the Supplier/Manufacturer Part Number (if applicable such as with commercial off-the-shelf parts).  Additional identification requirements may include physically marking manufactured parts with the Part Number and Revision as specified on the Drawing according to the methods listed below. If a different method is specified on the drawing, those requirements take precedence.  Note: Part Numbers and Drawing Numbers should be the same except for tabulated drawings. Extended Marking Method Codes include the following:  • G-01a SAE AS478-2 (Metal Stamp) – Drawing Number and Revision applied on each Part. Note: Engrave (shallow) is an allowed alternative for Metal Stamp but not vice versa. • G-01b SAE AS478-7A (Electrochemical Etch) – Drawing Number and Revision applied on each Part. • G-01c SAE AS478-30 (Ink Stamp) – Drawing Number and Revision applied on each Part. • G-01d SAE AS478-35D (Bag and Tag) Note: SAE AS478-37 (Package) - Applying part identification on the packaging (i.e. box) or labeling the part will be considered an acceptable alternative to Bag and Tag. • G-01e SAE AS478-3 (Engrave) – Drawing Number and Revision applied on each Part. • G-01f SAE AS478-15 (Laser) – Drawing Number and Revision applied on each Part.				
810	G-02 Part Serialization: Parts shall be individually serialized starting with serial number MMDDYY0001, where the date is the lot manufacturing date (date of serialization) and 0001 is the serial number within the lot. The location shall be adjacent to the part number and subject to the marking methods in G-01 and the Drawing.				
820	G-03 Roush Receiving Inspection Required: Roush QA inspection shall be performed upon receipt of parts. Note: Supplier shall provide evidence of compliance (certifications, documents, reports, etc.) to all specified Quality Requirements Codes with each shipment.				
830	G-04 Material Certification: Certification of materials is required to verify conformance to the PO,drawings, and specifications. Note: G-04 Material Certification can be satisfied by including this aspart of the statement/scope within the G-07 Certificate of Compliance. This code generally applies to parts made of bronze, brass, copper, plastics, or other materials that are not steel or aluminum.				

# Roush Quality Capability / Procurement Requirements (QCR)

<b>Document ID:</b>	CP-QA003	<b>Revision#:</b>	R26	<b>Issue Date:</b>	10/11/2023
<p>The below list of quality capability / procurement requirements are for both Roush employees and its existing and prospective suppliers when requests for quotations are issued and Purchase Orders are released. Not all requirements apply to every program. The Roush program team is responsible for identifying QCR requirements the supplier is required to comply with and fulfill. Suppliers are cautioned to read each requirement carefully to assure understanding and ask for clarification from the Roush buyer if needed. If a supplier is not capable of fulfilling a QCR requirement, they are required to inform the Roush buyer during the quoting phase. 600 series QCRs are for the Aerospace Industry. 800 series QCR and above are for the Entertainment Industry. Any program can select any of the QCRs beyond the mandatory eight. This list of procurement requirements does not limit a program team from specifying additional requirements when needed (See QCR 500).</p>					
<b>QCR Code</b>	<p><b>Roush Quality Capability/Procurement Requirements (QCRs) are requirements of the supplier that are included in the RFQ and Purchase Order sent to suppliers. Suppliers must demonstrate they have the capability of satisfying a requirement if it is specified in a RFQ or on a PO.</b></p>				
<b>840</b>	<p><b>G-05 Physical and/or Chemical Certification:</b> Certification of physical and/or chemical analysis for each material lot shall be as required to verify conformance to PO requirements, drawings, specifications, and standards. Certification shall be in the form of a Material Test Report (MTR). This code generally applies to parts made of steel or aluminum.</p>				
<b>850</b>	<p><b>G-06 Process Certification:</b> Certification of processes as specified on the PO, drawings, and specifications is required for each process lot along with a completed G-6 Process Certification Checklist (Roush Form ENGR-16B-PM).</p> <p><b>Heat Treatment</b> – Process Certification shall include (but is not limited to) the following:</p> <ul style="list-style-type: none"> <li>• Reference to the Process requirement (i.e. Hardness Test Type and required value).</li> <li>• Specific key requirements stated on the associated PO, drawing, specification, or standard.</li> <li>• Statement that the requirements have been complied with. At a minimum, it shall include: <ul style="list-style-type: none"> <li>o Surface Hardness results on 100 percent of heat treated components.</li> <li>o Destructive testing results (tensile, core hardness, etc.) on coupon(s) or sample part(s) as required to verify conformance to the PO, drawing, specification, or standard.</li> </ul> </li> </ul> <p>Plating/Coating/Finish – Process Certification may include (but is not limited to) the following:</p> <ul style="list-style-type: none"> <li>• Reference to the Process requirement.</li> <li>• Specific key requirements stated on the associated PO, drawing, specification, or standard (i.e. Plating/Coating/Finish including Class and Type, Plating Thickness, Painting Thickness).</li> <li>• Statement from the supplier actually performing the process that the requirements have been complied with.</li> </ul> <p><b>Shot Peening</b> – Process Certification shall include (but is not limited to) the following:</p> <ul style="list-style-type: none"> <li>• Reference to the Process requirement.</li> <li>• Specific key requirements (variables) stated on the associated PO, drawing, specification, or standard (e.g. shot size, hardness, material, intensity, percent coverage).</li> <li>• Statement that the requirements have been complied with.</li> </ul> <p><b>Bonding</b> – Process Certification shall include (but is not limited to) the following:</p> <ul style="list-style-type: none"> <li>• Reference to the Process requirement.</li> <li>• Specific key requirements stated on the associated PO, drawing, specification, or standard (e.g. Adhesive Type, Preparation, Temperature and Cure Time).</li> <li>• Statement that the requirements have been complied with.</li> </ul>				
<b>860</b>	<p><b>G-07 Certificate of Compliance:</b> Certification for all parts shall accompany each shipment and note the Part Number, Revision level, PO number, and amendments. In addition, certification for manufactured parts shall also include a statement attesting to compliance with the PO, drawings, and referenced specifications.</p>				
<b>870</b>	<p><b>G-08 No Substitution:</b> No substitution is allowed for Materials, Part Numbers, Codes, Specifications, or Processes without prior written approval from Roush. Supplier may submit a Deviation or Waiver Request. Supplier shall furnish documented evidence of a Roush Deviation or Waiver approval with each shipment of parts.</p>				
<b>880</b>	<p><b>G-09 First Article:</b> A First Article part or assembly shall be submitted for the Roush's approval prior to a production run.</p>				
<b>890</b>	<p><b>G-10 Special Care Parts Material Certification:</b> Material and its associated G-05 Code Certification (Material Test Report – MTR) shall be obtained from approved manufacturers (i.e. mills and laboratories) as outlined below:</p> <ul style="list-style-type: none"> <li>• MTRs from mills and/or laboratories that are located within the United States are approved.</li> <li>• MTRs from mills and laboratories that are located outside of the United States shall include documented evidence that the laboratory generating the MTR is ISO 17025 accredited by a signatory to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (<a href="http://www.ilac.org">www.ilac.org</a>).</li> </ul> <p><b>Note:</b> If the initial MTR from a mill or laboratory is located outside of the United States and is not from an ISO 17025 accredited laboratory, then the Supplier shall perform Third Party testing at an independent laboratory that is ISO 17025 accredited. Proof of accreditation shall accompany the MTRs along with the shipped parts.</p>				
<b>895</b>	<p><b>G-11 Fastener Requirement:</b> A Certificate of Conformance shall be provided with all orders certifying that the fastener(s) meets all Engineering specifications and applicable requirements as recognized in the fastener industry and purchase order requirements.</p> <p>All fasteners/hardware (screws, nuts, structural fasteners, hardened steel washers) in ¼ inch or 6mm or larger sizes, require a certified Material Test Report.</p> <p><b>G-11 Fastener Requirement:</b> A Certificate of Conformance shall be provided with all orders certifying that the fastener(s) meets all Engineering specifications and applicable requirements as recognized in the fastener industry and purchase order requirements.</p> <p>All fasteners/hardware (screws, nuts, structural fasteners, hardened steel washers) in ¼ inch or 6mm or larger sizes, require a certified Material Test Report.</p>				
<b>900</b>	<p><b>G-12 Proof of Inspection:</b> Supplier shall have objective evidence of inspection and acceptance. Documented proof shall include (but is not limited to) the following:</p> <ul style="list-style-type: none"> <li>• Inspection Report verifying compliance to the requirements as specified on the PO/MSR and its associated Drawings, Specifications, and Standards, (e.g., Materials, Dimensions, Processes, NDT, and other requirements).</li> <li>• Parts shall be inspected according to the RES Inspection Sampling Plan - F-RES-QA011.</li> <li>• The Inspection Report shall correlate to a ballooned copy of the Roush released part drawing. <ul style="list-style-type: none"> <li>– Part # and Revision must match PO/MSR.</li> <li>– Identified Ballooned Drawing features must correlate to the Inspection Report.</li> </ul> </li> <li>• Completed RES Supplier QC Documentation Submission Checklist - F-RES-QA003.</li> </ul> <p>NDT (Non-Destructive Testing)</p> <ul style="list-style-type: none"> <li>• Reports verifying compliance to applicable specifications. Such tests may include Eddy Current Test (ET), Liquid Penetrant Test (PT), Magnetic Particle Test (MT), Radiographic Test (RT), Ultrasonic Test (UT), etc.</li> <li>• Reports shall include documentation of testing requirements, results, and all component specific documentation required by applicable specifications (e.g., NDT Technique Sheets). <ul style="list-style-type: none"> <li>– This shall include applicable NDT Technician qualifications in accordance with ASNT SNT-TC-1A for testing performed in the United States.</li> <li>– Testing performed outside of the United States shall comply with ASNT SNT-TC-1A or ISO 9712 and be on the list of International NDT Sister Societies and Related have an "Agreement for Professional Cooperation" with the ASNT (<a href="https://www.asnt.org/MajorSiteSections/About/International.aspx">https://www.asnt.org/MajorSiteSections/About/International.aspx</a>).</li> </ul> </li> </ul>				
<b>902</b>	<p><b>Mag Particle Inspection</b> – For documentation requirements refer to: RES Magnetic Particle Testing /Inspection Documentation Requirements – R-RES-QA001 at <a href="http://www.roush.com">www.roush.com</a> &gt; Downloads &gt; Quality Certificates&gt; Roush Quality Requirements &amp; Forms.</p>				
<b>905</b>	<p>Electrical Inspection Documentation: Supplier shall have objective evidence of 100% inspection and acceptance. Documented proof shall include an Inspection Report correlated to the part print - verifying compliance to the requirements as specified on the PO/MSR and its associated Drawings, Specifications, and Standards, (e.g. Materials, Dimensions, Processes, and other requirements).</p> <p>All Inspection templates/documents are to be submitted and approved by ROUSH Quality PRIOR to the start of manufacturing.</p>				
<b>907</b>	<p>Electrical Cable Assembly Inspection: Supplier shall conduct an automated machine check on each Production cable/harness (excluding first articles, prototypes and/or low volume programs identified by ROUSH). Required mating connectors will be specified with our request for quote or supplied by ROUSH.</p>				
<b>908</b>	<p>Electrical Power Distribution / Control Box Inspection: Supplier shall conduct a Factory Acceptance Test (FAT) on each Power Distribution /Control Box as specified in the FAT Plan provided by ROUSH. Required mating connectors to be purchased will be specified in the FAT plan or supplied by ROUSH.</p>				



# Roush Quality Capability / Procurement Requirements (QCR)

Document ID:	CP-QA003	Revision#:	R26	Issue Date:	10/11/2023
The below list of quality capability / procurement requirements are for both Roush employees and its existing and prospective suppliers when requests for quotations are issued and Purchase Orders are released. Not all requirements apply to every program. The Roush program team is responsible for identifying QCR requirements the supplier is required to comply with and fulfill. Suppliers are cautioned to read each requirement carefully to assure understanding and ask for clarification from the Roush buyer if needed. If a supplier is not capable of fulfilling a QCR requirement, they are required to inform the Roush buyer during the quoting phase. 600 series QCRs are for the Aerospace Industry. 800 series QCR and above are for the Entertainment Industry. Any program can select any of the QCRs beyond the mandatory eight. This list of procurement requirements does not limit a program team from specifying additional requirements when needed (See QCR 500).					
QCR Code	Roush Quality Capability/Procurement Requirements (QCRs) are requirements of the supplier that are included in the RFQ and Purchase Order sent to suppliers. Suppliers must demonstrate they have the capability of satisfying a requirement if it is specified in a RFQ or on a PO.				
910	<p>G-13 Welding Requirement: Welding shall meet the applicable standards and requirements for parts provided to ROUSH.</p> <ul style="list-style-type: none"><li>Standards: American Welding Society (AWS) Structural Welding Code. This includes (but is not limited to) AWS D1.1 for Steel, AWS D1.2 for Aluminum, AWS D1.3 for Sheet Steel, and AWS D1.6 for Stainless Steel.</li><li>Requirements: Supplier shall furnish documented evidence of compliance to the applicable welding code and welding shall be reviewed by a current AWS Certified Welding Inspector (CWI) PRIOR to fabrication and shall be inspected during critical phases of the welding process.</li></ul> <p>Certification includes, but is not limited to:</p> <ul style="list-style-type: none"><li>Completed QCR 910 – G-13 Welding Process Inspection Checklist (included in F-RES-QA003 - RES Supplier QC Documentation Submission Checklist).</li><li>* Welding Procedure Specification (WPS). Documentation cross referencing the WPS to the part number is required.</li><li>* Procedure Qualification Record (PQR) as required by the WPS.</li><li>* Applicable Welder certifications such as Welding Performance Qualification Records (WPQR).</li><li>* Material Test Reports in accordance with 840 G-5 &amp; 890 G-10 Quality Requirements Codes.</li><li>Fit-up inspection (first piece).</li><li>In-process weld surveillance (first piece).</li><li>Final weld inspection (100% of all welds on all parts).</li><li>Verification that all applicable Non-Destructive Testing (NDT) was performed and is acceptable.</li></ul> <p>NOTE: Items marked with an asterisk * shall be reviewed by the CWI and then approved by ROUSH Quality PRIOR to any welding.</p>				
911	<p>G-13A Weld Documentation - Weldments only</p> <p>All WPS and PQR documents are to be submitted and approved by the Customer PRIOR to the start of welding. Documentation cross-referencing the WPS to the part number is required.</p>				
920	<p>P-01 Critical Surfaces (Small Parts): Units shall be packaged to protect critical surfaces from damage and corrosion. This code applies to parts measuring less than one inch along any axis.</p>				
925	<p>P-01 &amp; P-02 Critical Surfaces. All units shall be packaged to protect critical surfaces from damage or corrosion. Critical surfaces are defined as exposed surfaces which have had paint, plating, powder-coating, anodized coating or other surface applications that if scratched or marred effects the appearance, protection or corrosion capabilities of the material that was applied.</p>				
930	<p>P-02 Critical Surfaces (Large Parts): Critical surfaces shall be protected from damage and corrosion. This code applies to parts measuring greater than or equal to one inch along any axis.</p>				
940	<p>P-03 Packaging for Long-Term Storage: Package shall protect exposed surfaces from damage and corrosion for long-term storage. Note: Shelf life shall be specified, if applicable, by the Supplier.</p>				
950	<p>P-04 Electrostatic Sensitive Device Packaging: All electronic components, subassemblies, and printed circuit boards shall be individually packaged in Electrostatic Sensitive Device (ESD) shielding bags.</p> <ul style="list-style-type: none"><li>The outside of each ESD-shielded bag shall contain ESD Caution Labels, Manufacturer’s Part Number, Serial Number, Part Number, and PO Number as applicable.</li><li>The bagged electronic parts shall then be wrapped in antistatic plastic bubble wrap or antistatic foam to provide shock protection and prevent bag puncture.</li><li>The bagged and wrapped electronic parts shall then be unit-packaged in an appropriately sized box with sufficient box strength to protect the assembly from crushing and vibration damage.</li><li>The outside of each box shall be clearly labeled with ESD Caution Labels, Manufacturer’s Part Number, Serial Number, Part Number, and PO Number as applicable. Text shall be 1/4-inch minimum in height.</li><li>The Supplier shall also include a Packing Slip attached to the outside of the box that contains all the information outlined above. It is essential that Roush receiving personnel be able to identify the contents without opening the box.</li></ul>				
960	<p>Q-01 Source Inspection: A Roush source inspection is required at the Supplier’s facility prior to shipment. The Buyer shall be contacted prior to projected shipment. Final acceptance shall be at Roush Receiving Inspection.</p>				
970	<p>Q-02 Supplier Survey: Roush shall conduct a Supplier Survey prior to performance of the contract. The Buyer shall be contacted so that the appropriate source inspection points can be planned at the Supplier’s facility.</p>				
980	<p>Q-03 Witness of Tests: Roush reserves the option to witness performance tests, nondestructive tests, qualifications tests, and/or acceptance tests at the Supplier’s facility or at the designated facility of the Supplier’s subcontractor.</p>				
990	<p>Q-04 Welding Inspection: All welding performed on contract is subject to inspection by Roush. Buyer shall be contacted prior to performing any welding on contract so that the appropriate inspection points can be planned.</p>				
1000	<p>Q-05 Note: This code is reserved for future use.</p>				
1010	<p>Q-06 Quality Management System Audit: Roush shall conduct an audit of the Supplier’s Quality Management System to determine its adequacy before execution of the contract.</p>				
1020	<p>T-01 Buyer Furnished Tooling: All Buyer-Furnished Tooling (molds, patterns, templates, fixtures, original artwork, etc.) shall be returned to Roush when the order is completed.</p>				
1030	<p>T-02 Purchased Tooling: All purchased or fabricated tooling used in the performance of this Purchase Order is the property of Roush. The tooling shall be labeled with the Part Number and Revision Level. The tooling shall be shipped with the final delivery.</p>				
1040	<p>T-03 Tooling Inspection: Tooling acceptance shall be based on the Buyer’s inspection and acceptance of at least one item produced from each pattern, each cavity of a mold, or each part from a die or template. Further evidence may be required in the form of photographs of the tooling submitted with the item sample.</p>				
Authorization:	Approved by: Tony J. Parker, Director Corporate Quality 10/11/2023				