



*Manufacturing excellence through
change and innovation.*

SUPPLIER MANUAL

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1 Definitions

"Aircraft" means the Program Airplane and/or any Derivative thereof, as the context may require

"Business Day" means days other than Saturday, Sunday or statutory holidays (Ontario only)

"Centra" refers to Centra Industries Incorporated

"Centra Purchasing" means the individual designated by Centra as being primarily responsible for interacting with Seller regarding this Agreement or any Order. **"Product"** refers to anything that is manufactured or distributed by Seller.

"Customer" means any manufacturer, owner, lessee or operator of an aircraft or commodity, designee of such manufacturer, owner, lessee or operator.

"C of C" refers to Certificate of Compliance

"Drawing" means a computer-based or manual depiction of graphics or technical information representing a Product or any other part thereof and which includes the parts list and specifications relating thereto.

"End Item Assembly" means any Product which is described by a single part number and which is comprised of more than one component part.

"Engineering Release" means engineering Drawings, Datasets or other Documents, that define the design requirements of any product.

"FAI" refers to First Article Inspection;

"Hardware" refers to standard and non-standard components such as fasteners, bearings, and bushings etc. that are used in the manufacturing process.

Lead-times Procurement lead-time shall include procurement administration time, the lead time to procure all required materials, and Vendor manufacturing lead time.

Manufacturing Reorder Lead-time shall include processing and manufacturing, including queue, set-up run, move and special processing as required.

"Machined Product" refers to product that the primary process conducted is machining.

"MRB" refers to the Centra Material Review Board

"Order" means any Purchase contract and purchase order issued by Centra and either accepted by Seller under the terms of this Agreement or issued within Centra's authority under this Agreement.

"Person" means any individual, Sellership, corporation, limited liability company, joint venture, association, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof or any other entity.

"Product" means Product, including components and parts thereof, service, documents, data, software documentation and other information or items furnished to Centra under any Order, including Tooling.

"Product Specifications" means the Engineering Specifications, blue prints and testing requirements of the finished Product and packaging related thereto.

"Program" means the design, development, marketing, manufacture, sales and Customer support of Program Airplanes, Derivatives and Products.

"Raw Material" means material that is to be consumed in Centra's or its supplier's manufacturing process to produce a finished product.

"SCAR" means Seller Corrective Action Request

"Shipset" means the total set of Production Articles provided by Seller hereunder necessary for production of one Program Airplane or Derivative.

"Spare Parts" or **"Spares"** means Production Articles or components thereof, and materials, assemblies and items of equipment relating thereto, which are intended for Centra's use or sale as spare parts or production replacements.

"SPCS" means Sub-Contract Part Configuration Sheet(s)

"Seller" refers to any individual, organization or party under purchase order or contract with Centra.

"Seller's Facility" means the site from which the product is manufactured and/or distributed;

"Special Processing" means processes used to inspect, test, alter surface finish or coat a product.

"Tooling" means all tooling, used in production or inspection of Product, either provided to Seller or supplied by Seller whereby Centra agrees to pay Seller for the manufacture of the tooling.

2 Overview

This document is applicable to all Centra Purchase Orders for materials and components consumed in its production process. This document describes the requirements for Quality, Delivery and other general requirements. Centra Product specific requirements will be communicated on the Purchase Order for that Product. Seller specific terms and conditions outside of this manual must be agreed upon and documented with the Centra purchasing group.

This Supplier Manual cancels and supersedes all previous versions of Centra (CII) Purchase Order Clauses and Conditions.

Any change to seller's organizational structure, location or ownership that may affect the quality or delivery of a product or service supplied to Centra shall be communicated in writing to Centra's purchasing Department prior to incorporation of such changes.

3 Purchase Order Review

It is the responsibility of Seller to review all orders placed. Review must be adequate to ensure that Seller has the resources and capability to comply with the terms of the order as well as scheduled requirements. Source inspection, when required will be clearly stated in the purchase order text for the product.

4 Quality System Requirements

Organizations providing product or services to Centra shall maintain a documented Quality Management System. The preferred quality systems are SAE AS9100 or SAE AS9120, other suitable systems include ISO9001:2008 and ISO/TS16949. It is Seller's responsibility to supply Centra with the most recent copy of its certification and any future re-certifications. Initial and subsequent periodic review of Seller's quality system may be performed at the option of Centra.

5 Approved Sources of Supply

Raw Material – Material shall be procured from approved sources of supply. Vendor must participate in all Centra and Centra Customer material programs. If clarification is required it is the Vendors responsibility to contact Centra's Purchasing Department.

Special Processes shall be performed by approved sources as applicable by process and Centra's Customer requirements. End Customer and intermediate Customers are specified on each purchase order or SPCS.

Reference Information regarding Special Processing approvals:

Approval Source	Document Name	Link
Boeing	D-14426	http://www.boeing.com/companyoffices/doingbiz/d14426/index.html
Goodrich	Document 200	https://m1.grdns.com/livelink/livelink?func=LL_getlogin&NextURL=%2Flivelink%2Flivelink%3Ffunc%3DI!%26objid%3D672196
General – NADCAP	Approved Sources	http://pri-network.org/ .

Reference Information for Process Specifications:

Approval Source	Link
Boeing	http://www.boeing.com/companyoffices/doingbiz/bps/index.html
Goodrich	https://m1.grdns.com/livelink/livelink?func=LL_getlogin&NextURL=%2Flivelink%2Flivelink%3Ffunc%3DI!%26objid%3D672196
Society of Automotive Engineers	http://www.sae.org
Military Standards	http://assist.daps.dla.mil/quicksearch/
ASTM	http://www.astm.org/cgi-bin/SoftCart.exe/index.shtml?E+mystore
ASME	http://www.asme.org/
ANSI	http://webstore.ansi.org/ansidocstore/default.asp
NAS	http://store.ihs.com/specsstore/controller?event=HOME

Hardware

All Boeing bearings and fasteners are controlled by the D-590 listing. This control may encompass manufacturer and distributor.

Metal Formed and Machined Product

All Metal Formed and Machined Product are subject to clauses above.

6 Control of Processes

First Article Inspection

Seller must submit an FAI per SAE AS9102 with all initial shipments of product.

In addition to the required fields per current revision of AS9102 the following is required:

Requirement	Machined Product	Raw Material	Hardware	Special Processing
Serial Number	X			
Part Revision Level	X		X	
Drawing Number	X		X	
Drawing Revision Level	X		X	
Additional Changes	X			
Material or Process		X		X
Specification		X		X
Certificate of Conformance Number	X	X	X	X
Functional Test Procedure Number		X		X
Acceptance Report Number		X		X
Reference Location	X			
Characteristic Designator	X			
Replication of part marking (picture or photocopy)	X			
Balloon Drawing which includes: <ul style="list-style-type: none"> • 100% of the drawing features including notes • Raw Material or Processing information per above requirements for Processing and Raw Material • Evidence of Approved sources of supply • Variable data for coating thickness • Variable data for all threads in excess of 0.190" nominal size for; <ul style="list-style-type: none"> ○ Pitch Diameter ○ Minor Diameter ○ Major Diameter 	X			

Seller must submit a delta FAI when there is any change to the product or process as defined in AS9102.

Electronic copies of the FAI must be emailed to the primary contact prior to shipping. FAI forms per AS9102 in MS Excel format are available for use upon request.

**NOTE - The requirements of FAI do not apply to suppliers of industry standards components

7 Traceability

All fabricated product shipped to Centra must be traceable to the original material mill heat lot. Each lot of product sub-contracted for special processes must remain traceable to the original lot as shipped to Seller. Serialized items shall maintain ultimate traceability to the unique serial number throughout all stages of manufacturing and processing.

8 Document and Data Control

All data provided to Seller is considered proprietary to either Centra or its Customers. All drawings, specifications and other information must be controlled to the extent required to ensure that dissemination is limited to individuals performing tasks related to Centra purchase orders or requests for quotations.

Digital Product Data (DPD) provided to Seller is to be considered "for reference only" unless Seller is approved to handle DPD in accordance with Centra requirement. Partial or Full approval may be granted depending on the Seller's capabilities and procedural controls.

Seller shall notify Centra of any discrepancies, conflicts or omissions found on product engineering or purchase orders. Product engineering conflicts that cannot be resolved will be submitted for resolution to the appropriate engineering authority. Additional specifications or drawings required can be requested from the primary point of contact.

9 Retention of Records

Seller shall maintain on file at Seller's facility, Quality records traceable to the conformance of product/part numbers delivered to Centra. Seller shall make such records available to regulatory authorities and Centra's authorized representatives. Seller shall retain such records for a period of not less than seven (7) years from the date of shipment under each applicable order for all product/part numbers unless otherwise specified on the order. Seller shall maintain all records related to the current first article inspection (FAI) for seven (7) years past final delivery of the last Product covered by the FAI.

At the expiration of such period, Centra reserves the right to request delivery of such records. In the event Centra chooses to exercise this right, Seller shall promptly deliver such records to Centra at no additional cost on media agreed to by both parties.

Record retention for quality documentation is as follows:

- All records must be kept on file at Seller for the service life of the applicable product family
- Inspection records must be kept on file and be available for review for up to 10 years from the point of sale
- Inspection records for serialized product must be kept on file for the service life of the product

Records of training and certification shall be kept on file at Seller.

10 Inspection and Testing

Certificate of Compliance

Certificate of Compliance minimum content

Requirement	Machined Product	Raw Material	Hardware	Special Processing
Seller Name	X	X	X	X
Manufacturer of Product (if different from Seller)	X	X	X	X
Part Number	X	X	X	X
Part Number as described on the Centra purchase order (if different)	X	X	X	X
Complete drawing configuration (including Revision Level and SPCS if applicable)	X	X	X	X
Purchase Order number and line item number	X	X	X	X
Quantity Shipped	X	X	X	X
Lot traceability identifier	X	X	X	X
Special processes performed (by specification and revision) and source of special process	X	X		X

Serial Number(s) if applicable	X	X		X
Waiver or deviation information as approved by Centra	X	X		X
Copies of all material and special process certifications	X	X	X	X
Test report data (if applicable)	X	X		X
A statement of conformance signed by an authorized member of Seller's quality function	X	X	X	X
Centra customer specific requirements	X	X	X	X

Sellers of special processes or product containing special processes are required to perform processes to the latest revision at the time of processing unless directed otherwise by the purchase order or engineering definition. The supplier is responsible to review the specification applicability at the time of processing. Certifications must contain the revision level of the special process performed. Special process revisions can be verified real time via the following websites:

- i. Boeing - Process and Specification Support Standard Departure Accountability Pages
<http://www.boeing.com/companyoffices/doingbiz/bps/index.html>
- ii. Goodrich - Combined Specification List
<https://m1.grdns.com/livelink/livelink?func=LL.getlogin&NextURL=%2Flivelink%2Flivelink%3Ffunc%3DI%26objId%3D672196> (note: this is a customer secure site)
- iii. Society of Automotive Engineers - <http://www.sae.org>
- iv. Military Standards - <http://assist.daps.dla.mil/quicksearch/>
- v. ASTM - <http://www.astm.org/cgibin/SoftCart.exe/index.shtml?E+mystore>
- vi. ASME - <http://www.asme.org/>
- vii. ANSI - <http://webstore.ansi.org/ansidocstore/default.asp>
- viii. NAS - <http://store.ihs.com/specsstore/controller?event=HOME>

Where special process revisions are not accessible through public means and Seller cannot validate specification revisions, Centra will provide monthly specification listings or equivalent revision control visibility. It is the responsibility of the Seller to ensure they have visibility to specification revisions prior to performing special processes.

11 Non-Conforming Product

If Seller delivers Non-Conforming product, Centra may at its option and at Seller's expense;

- Return Product for credit or refund
- Require Seller to promptly correct or replace the Product
- Correct the Product
- Obtain replacement Product from another source

All costs, expenses and loss of value incurred as a result of or in connection with nonconformance and repair, replacement or other correction may be recovered from Seller by equitable price reduction or credit against amounts that may be owed to Seller under this Agreement or otherwise. Where the Seller has not responded to a notice of non-conformance within 5 business days of receipt, Centra will take appropriate disposition action without further notice.

All Non-Conformances will result in an administration fee up to \$250 at the discretion of the Centra purchasing agent

Seller shall provide written notification to Centra Purchasing within one business day of when a non-conformance is determined to exist or is suspected to exist, on Product already delivered to Centra under any Order and the following is known:

- Affected process or Product number and name
- Description of the problem (what it is and what it should be)
- Quantity and dates delivered
- Suspect / affected serial numbers or date codes, when applicable

In this event a complete Notice of Escapement containing Root Cause, Corrective Action and Implementation Plan must be submitted within 5 business days of notification. Complete traceability of product in question shall be provided.

Seller agrees to grant authorization for return of defective Product discovered by Centra or its Customer. Authorization is to include the terms upon which the Product is to be returned.

Non-Conforming Product discovered by Centra or its Customer will result in a Seller Non-Conformance Notice (SNN). If the nonconformance is an isolated incident and minor in nature the SNN will serve as a notification only. If the nonconformance is a repeat issue or significant in nature a Supplier Corrective Action Request (SCAR) will be issued and a Corrective Action must be completed within 15 days.

Non-Conforming product that can be returned to engineering configuration within the normal process flow shall be reworked prior to submitting to Centra for review. The preferred location for rework is Seller's facility. Centra reserves the right to direct rework of Seller reported non-conformances or Seller non-conformance escapes. Rework performed that violates the original C of C will be reworked via a zero cost purchase order and a new C of C must be issued. If Seller is uncertain of acceptable rework methods request engineering support through the Centra primary contact.

Seller shall not redeliver corrected or rejected goods without disclosing the former rejection or requirement for correction. Seller shall disclose any corrective action taken. Repair, replacement and other correction and redelivery shall be completed within the original delivery schedule or such later time as Centra Purchasing may reasonably direct.

Goods shall not be replaced without written authorization from Centra Purchasing.

Non-Conforming product requiring Customer MRB activity will be evaluated for submission on a case by case basis.

12 Shipping, Handling and Packaging

Seller shall pack the Product to prevent damage and deterioration taking into account method of shipment, location of shipment and destination of receipt, as well as time associated with shipment.

Packaging design shall be suitable for, and consistent with the requirements and limitations of the transportation mode specified by Centra.

Centra may charge Seller for damage to or deterioration of any Products resulting from improper packing or packaging.

Seller shall comply with any special instructions stated in the applicable Order.

Upon Centra's request, Seller will identify packaging charges showing material and labour costs for container fabrication.

Packaging shall be controlled to the extent necessary to ensure conformance to Customer and/or regulatory authority specified requirements.

Product marking method shall be consistent with SPCS required part marking methods.

Intrusive methods of marking the Country of Origin (i.e. etching, vibropeening) shall be authorized by Centra prior to use. The purchase order or SPCS may include specific packaging instructions.

13 Schedule and Planning changes

Schedule Acceleration/Deceleration

Upon receipt of written notice of the change, Seller shall make its best effort to implement the change as soon as possible, but in no event shall the change be implemented later than four (4) months after notification of schedule acceleration or two (2) months after notification of a schedule deceleration.

Planning Schedule

Any planning schedule, forecast, or any such quantity estimate provided by Centra shall be used solely for production planning. Centra may purchase Products in different quantities and specify different delivery dates as necessary to meet Centra's requirements. Any such estimate shall be subject to adjustment from time to time, and such adjustment shall not constitute a change or termination under this Agreement

14 Delivery

Seller will provide NAFTA certificate of origin for all Products in advance of shipments to Centra and must be resubmitted annually by November 30th. Costs, fines or tariff penalties incurred by Centra resulting from non-compliance with NAFTA requirements or with missing or incomplete documentation will be the responsibility of the Seller. Should non-compliance arise a \$200 USD administration fee per occurrence will be debited from the Seller's account.

Seller will deliver the Product F.O.B. Centra's applicable manufacturing facility.

All shipping documents shall refer to part number, purchase order number and certificate of compliance number. Shipping documents are to be completed in accordance with all NAFTA requirements.

If Seller encounters or anticipates difficulty in meeting the delivery schedule, Seller shall immediately notify Centra in writing, providing pertinent details; provided however, the receipt of such data shall be for informational purposes only and shall not be construed as a waiver by Centra of any delivery schedule or date or of any rights or remedies provided by law or this Manual. Seller may be requested by Centra to communicate a detailed recovery plan in writing. This plan shall consist of but will not be limited to:

- Anticipated date of completion of the order
- Schedule of interim shipments to be made in order to sustain manufacturing operations at Centra's facility.
- Root Cause Analysis of shortage

Centra may also, at its discretion request that the plan be communicated in person either at Seller's facility or at Centra's facility.

Should the recovery plan not be suitable to sustain production levels required, Centra may be forced to procure requirements from alternative sources in which case Centra shall have the right to offset any additional costs incurred against monies owed to Seller with no recourse from Seller

If Seller fails to meet its scheduled delivery dates and Centra elects to require expedited shipments, Seller will pay the cost of the actual expedited rate incurred. Centra, at its election, may accept Product(s) which are not delivered on or before the required delivery date, in which case, the Seller shall be liable for all reasonable additional costs including, but not limited to, telecommunication costs, additional or premium transportation charges, special handling expenses, and cost to the Centra to install the materials out of normal manufacturing sequence in addition to other remedies available by law.

Manufacturing stoppage costs incurred by Centra including costs levied against Centra by its Customer that are a result of poor delivery performance by Seller will be debited from the subsequent payment to Seller.

Any Premium Freight costs incurred by Centra including shipments from Centra to its Customer as a result of production delays caused by poor delivery performance by Seller will be debited from the subsequent payment to Seller.

Centra may, at any time by written notice to Seller, require Seller to stop all, or any part, of the work called for by an Order for a period of one hundred and eighty (180) days after the notice is delivered to Seller, and for any further period to which the Parties may agree. The Order shall be specifically identified as a Stop-Work Order issued under this Section. Upon receipt of such Stop-Work Order, Seller shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work stoppage. Within a period of one hundred and eighty (180) days after a Stop-Work Order is delivered to the Seller, or within any extension of that period, which the Parties shall have agreed, Centra shall either: cancel the Stop-Work Order; or terminate the work covered by the Order.

15 Supplier Evaluation

All critical and new suppliers will be monitored through the Centra Vendor Performance Report. Performance ratings will be based on the following criteria:

VENDOR PERFORMANCE	ON TIME DELIVERY	QUALITY ACCEPTANCE	PAST DUE SCAR	CUSTOMER SERVICE		OVERALL TOTAL SCORE
Score based on	30%	30%	20%	20%		100%
GOLD	Above 95%	Above 99%	0 = 100% 1 = 50% > 1 = 0%	Proactive	100%	95 - 100%
SILVER	90 - 94%	98 - 99%		Responsive	90%	90 - 94%
BRONZE	85 - 89%	97 - 98%		Meets Expectations	80%	85 - 89%
YELLOW	80 - 84%	95 - 97%		Needs Improvement	70%	80 - 84 %
RED	Less Than 80%	Under 95%		Unresponsive	60%	Less than 80%

Gold = Excellent

Silver = Very Good

Bronze = Fair

Yellow = Marginal

Red = Unacceptable Vendor

****NOTE - Vendor Performance Reports will be sent to the appropriate Sellers on a quarterly basis**

In the event that a Seller displays unsatisfactory performance or an inability to meet specified purchase order requirements Centra may take the following actions:

- Request for corrective action
- Subcontractor audit (system and/or product)
- Limit scope of approval
- Removal of subcontractor from the AVL
- Re-source work statement
- Consult with subcontractor quality system registrar

16 On Site Review

Seller hereby grants, and shall cause any of its subcontractors or Sellers to grant, to Centra the right to visit the facility of Seller or any of its subcontractors or Sellers during operating hours to review progress and performance with respect to production, schedule, cost, quality and protection of Centra's proprietary rights under any Order. Any Centra representative shall be allowed access to all areas used for the performance of the Agreement. Such access shall be subject to the regulations of any governmental agency regarding admissibility and movement of personnel on the premises of Seller or any of its subcontractors or Sellers.

Centra shall notify Seller prior to any visit. Such notice shall contain the names, citizenship and positions of the visiting personnel and the duration and purpose of such visit if required.

Centra, its Customers, end users and related government and civil authorities reserve the right to review, upon request, at Sellers facility any product or records pertaining to services procured by Centra.

17 Seller's Inspection

Seller shall inspect or otherwise verify that all products, including those components procured from or furnished by Seller's or Centra's subcontractors to Seller or Centra, comply with the requirements of the Order prior to shipment. Seller shall be responsible for all tests and inspections of the Product during receiving, manufacture and Seller's final inspection. Seller agrees to furnish copies of test and/or control data upon request from Centra Purchasing.

18 Tooling

The recurring price is inclusive of any Seller amortization or recovery of nonrecurring work over the shipsets delivered during the term of the agreement. No additional payment shall be made by Centra for any nonrecurring work performed hereunder. In addition, Seller waives and agrees not to assert to recover or recoup any costs associated with nonrecurring work in the event of default, failure to launch the program, program cancellation or end of the Agreement either upon expiration or mutual agreement of the parties.

The instances where Seller incurs unusual cost, both parties must negotiate to define the responsible party to bear said costs and the amount of reimbursement if any.

Tooling shall remain the property of Centra or its Customer. All tooling shall be marked by Seller as "Property of Centra Industries Inc" and segregated by Seller from the property of Seller or the property of others.

Seller shall provide control, accountability, care, storage, maintenance and replacements of all program tooling Seller acknowledges that the purchase price for tooling includes accruals for all consumable items for the life of the program.

Seller will be responsible for all regular tool maintenance and consumable supply costs at its own expense.

Supporting Documents

Bombardier - QD4.6-40 Quality Requirements

Bombardier - Approved Supplier Listing

http://www.bombardier.com/en/3_0/3_5/pdf/3_5_1.pdf (by supplier)

http://www.bombardier.com/en/3_0/3_5/pdf/3_5_2.pdf (by process)

Goodrich- Document 300 – Supplier Manual

http://www.lgd.goodrich.com/pdf/Document_300.doc

Goodrich - Document 200 - Approved Processor List

http://www.lgd.goodrich.com/suppliers/search_processors.shtml

Goodrich - Combined Specification List

<http://www.lgd.goodrich.com/suppliers/specindex.shtml>

Boeing – D14426 Approved Process Sources

<http://www.boeing.com/companyoffices/doingbiz/d14426/index.html>

Boeing - Process and Specification Support Standard Departure Accountability Pages

<http://www.boeing.com/companyoffices/doingbiz/bps/index.html>




NADCAP

<http://pri-network.org/>

Society of Automotive Engineers

<http://www.sae.org>

Revision History

Revision	Date	Description of change	Approved by
NC	01/02/2007	Initial release	
A	11/14/2008	Addition of references to DPD requirements	
B	05/08/2009	Documentation Updates	
C	11/1/2010	Minor Documentation Updates.	