



Donaldson Company, Inc.

Supplier Quality Manual (DSQM)

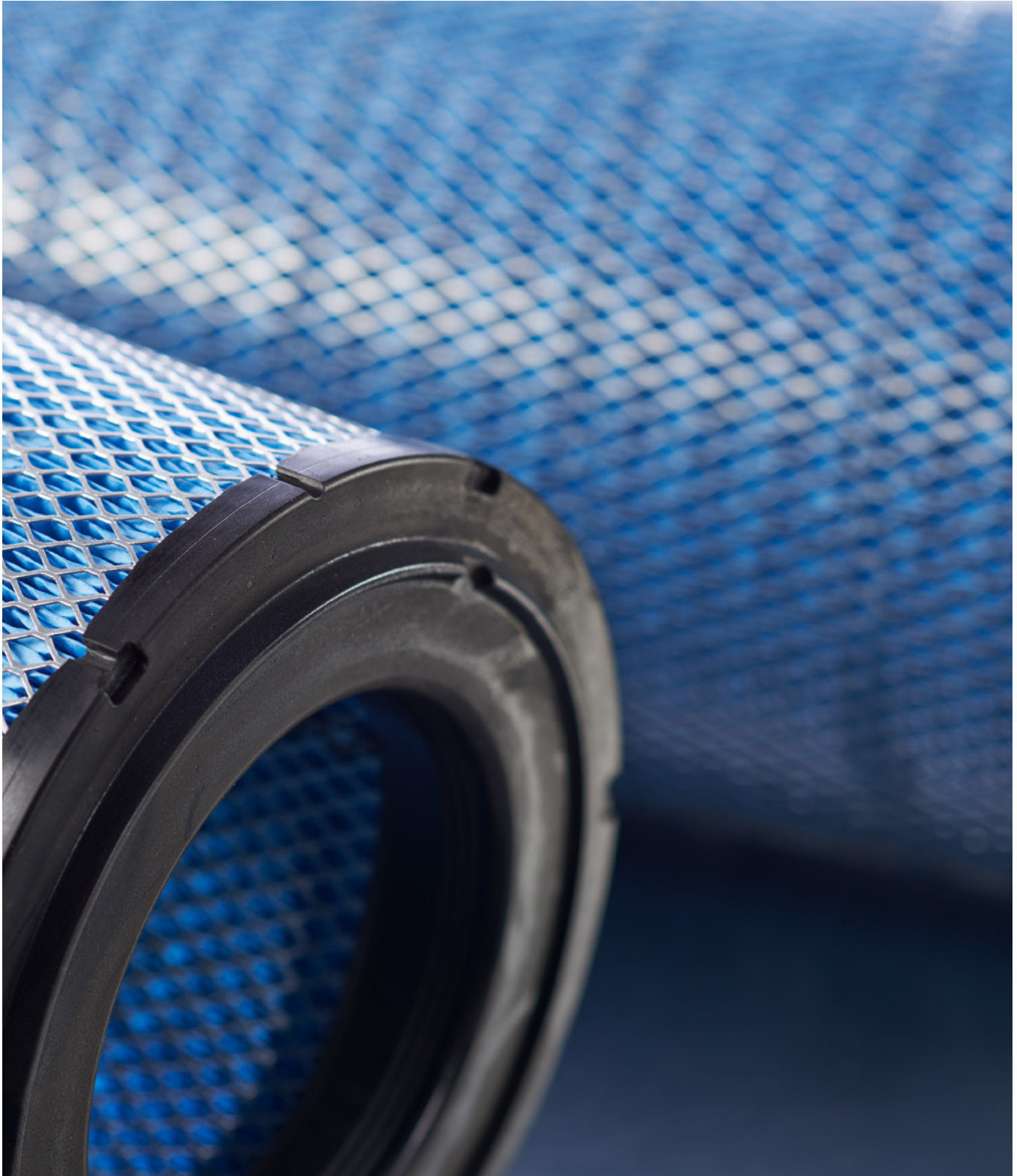


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Acronyms

DCI – Donaldson Company Inc.

DBV – Donaldson Buys Value Program

CSR – Corporate Social Responsibility

DSQM – Donaldson Supplier Quality Manual

DPPM – Defective Parts Per Million

RFQ – Request for Quote

PO – Purchase order

SPPAP – Supplier Production Part Approval Process

PSW – Part Submission Warrant

8D – 8 Step Problem Solving Approach

AIAG – Automotive Industry Action Group

APQP – Advanced Product Quality Planning and Control Plan

CPK – Continuous Process Capability

PPK – Process Potential Capability

1.0 Introduction

Donaldson Company Inc. (DCI) is a global manufacturer and distributor of filtration equipment into a diverse range of industries and applications. Founded in 1915 by Frank Donaldson, the company initially provided air filtration equipment to the agricultural market and, over the next 100 years, the company has expanded and diversified their product portfolio and geographic locations. Today, DCI's global operations are based on discrete business units and have manufacturing facilities around the world that ensure meeting of statutory and regulatory requirements globally and locally.

Our Purpose:

Advancing Filtration for a Cleaner World.

Our Principles:

- **ACT WITH INTEGRITY:** We deliver on our commitments and are accountable for our actions – we do what we say we will do.
- **ENGAGE AND EMPOWER OUR PEOPLE:** We have a richly diverse and inclusive culture, and provide opportunities for our people to grow, build successful careers and make meaningful contributions.
- **DELIVER FOR CUSTOMERS:** We understand, anticipate and prioritize customers' needs, delivering differentiated products and solutions that enable their success.
- **CULTIVATE INNOVATION:** We pursue innovation in everything we do, from continuous improvement in our processes to breakthrough solutions that create value and competitive advantage.
- **OPERATE SAFELY AND SUSTAINABLY:** We are committed to safety in the workplace, being good stewards of natural resources and reducing our environmental impact.
- **ENRICH OUR COMMUNITIES:** We share our time, resources and talent to make a positive impact in the world.

1.1 Donaldson Overview

Our customers are as varied as the industries they represent, and include Products & Solutions for Aerospace & Defense, Bulk Fluid Storage, Compressed Air & Gas, Compressor, Connected Solutions, Disk Drive, Engine Filters & Parts, Engine OEM Systems, Gas Turbine, Hydraulics, Industrial Dust, Fume & Mist, Membranes, Process, Production Printing, Semiconductor and Venting. An extensive and up-to-date list of Donaldson's products can be found at Donaldson's Web Site: <https://www.donaldson.com/en-us/products>.

DCI complies with its customer's contractual quality system requirements including industry specific or customer specific quality system requirements. The current revisions of IATF 16949, ISO 9001 and AS/EN9100 are the quality system requirements adopted by Donaldson Buys Value Program (DBV) and the Donaldson Supplier Quality Manual (DSQM).

1.2 Quality Commitment



Donaldson Quality Commitment

Complete Customer Satisfaction,
Continuous Improvement and
Problem Prevention in All Activities.

Our process to achieving these goals includes:

- Elimination of waste and variation;
- Setting and maintaining world-class standards and benchmarks;
- Developing and empowering our people; and
- Standardizing processes and measurement of progress.

For the long-term success of our company, understanding and fulfilling customer needs will benefit both our shareholders and our employees. Our management is accountable to ensuring that this policy is understood, implemented and maintained at all levels of our organization.

 
Ted Carpenter, President & CEO

April 1, 2015

1.3 Environmental Health & Safety Commitment & Corporate Social Responsibility

Donaldson is committed to uniformly apply high standards of ethics and conduct wherever it does business. Donaldson Company regards Environmental, Health and Safety (EHS) excellence as a fundamental value. Donaldson is committed to efficiently and effectively reducing the environmental impacts of its operations while producing safe, health and complaint workplaces for its employees, visitors and neighbors.

Donaldson similarly expects its Suppliers to direct efforts in the following areas:

- Partner with Donaldson to promote the safe, compliant, sustainable use of products and services.
- Establish systems to meet or exceed applicable EHS laws and regulations in the countries they operate.
- Establish EHS targets and objectives and report progress in protecting employees while continuously reducing environmental impacts through pollution prevention, energy conservation and the waste minimization.
- Continuously reduce exposure to health and safety hazards and environmental impacts that can result in harm to people or the environment.
- Strive for obtaining the latest revisions of ISO14001 and ISO45001 certifications.

Corporate Social Responsibility (CSR) / Sustainability is a process for companies to integrate social, governance, environmental and supply chain sustainability into operations and corporate strategy.

1.4 Purpose

The purpose of the DSQM is to communicate Donaldson's Quality requirements to suppliers. We strive to ensure that we are setting clear expectations and flowing down our customer requirements to our supply base. This step is critical for Donaldson to continue to exceed customer expectations and maintain our Quality Commitment. This manual covers the most important quality related interactions between DCI and its suppliers as well as where to find additional information on tasks, documents, responsibilities and performance metrics.

1.4 Scope

This manual applies to all suppliers of parts, materials, tooling and services to all Donaldson locations worldwide. This manual in conjunction with Donaldson Buys Value provides the primary quality and service requirements.

1.5 Quality Requirements and Expectations

Suppliers doing business with Donaldson shall have long term relationships in mind. Our customers expect this, and we strive for it in our everyday business dealings. Obtaining the best "value" for the products purchased will always be our goal. DCI defines value as Safety, Quality, Service, Cost and Innovation, as well as, CSR (corporate social responsibility). Quality must strive for zero defects, not exceeding 50 DPPM; and 100% timely submission of SPPAP's when required. Donaldson Procurement may communicate during RFQ stage different DPPM requirements depending on specific applications and/or customer programs. Delivery must focus on 100% to the on-time delivery requirement.

Donaldson Buys Value (DBV) Program is the comprehensive framework for the DCI/supplier relationship. A copy of the DBV manual can be found at: <https://www.donaldson.com/en/supplier/dbv/index.html> DCI expects our suppliers to provide materials, parts, assemblies, tools, and services that meet our engineering requirements with minimum variation. In addition, they must be delivered on-time and be cost effective.

All Products and Services, as applicable, must be properly identified by part number and date of manufacture for traceability and shipped to us on ISPM15 compliant pallets. Please refer to the Donaldson Website for more information on shipping requirements: <https://www.donaldson.com/en/supplier/dbv/index.html>

1.6 Supplier Code of Conduct

Donaldson and its global affiliates share common Core Values of Integrity, Respect, Innovation and Commitment. In keeping with our Core Values, we are committed to applying high standards of ethics and business conduct in every country in which we operate and within every business relationship we have worldwide to include our business relationships with suppliers.

Just as we expect our employees to demonstrate our Core Values, we expect our suppliers to conduct all business activities within the guidelines of Donaldson's Supplier Code of Conduct at all times. These obligations are in addition to supplier obligations contained in purchase orders or agreements with Donaldson. The Supplier Code of Conduct is in no way intended to conflict with or modify the terms and conditions of any existing contract. In the event of a conflict, suppliers must first adhere to

applicable laws and regulations, then the contract terms, followed by the supplier code of conduct. A link to the current supplier Code of Conduct can be found in the **bottom right corner of our supplier website**: <https://www.donaldson.com/en/supplier/dbv/index.html>.

2.0 Quality Management Requirements

2.1 Contact Information

Suppliers are responsible for providing DCI with contact information for All Key Departments involved in providing Products and Services. This contact information will be used to communicate SQM updates, customer specific requirements, non-conformances and coordination of instructions and access to our SPPAP management System. These quality contacts are normally active participants in the DBV program.

2.2 Certification

The materials, parts, assemblies and services our suppliers provide to DCI have a direct impact on the final quality of our products and services.

All Suppliers providing Products and Services delivering to Donaldson are required to be ISO9001 certified as a minimum Suppliers which are not duly certified to ISO9001 will be required to submit a detailed action plan and timeline for compliance within the first three months following the business award. Depending on business unit and / or Customer specific requirements, the Suppliers' Products and Services are used for, Donaldson may require IATF16949, AS9100 or NADCAP (in specific applications).

The table below references Quality Standards by Business unit:

Standard	Business Unit
IATF16949	Engine and Industrial Venting Solutions
AS9100, NADCAP	Aerospace and Defense
ISO9001	All (other) business units

Donaldson also encourages Suppliers to obtain latest versions of ISO45001 (Occupational Health & Safety) and ISO14001 (Environmental Management) certificates.

Evidence of a fully-functioning quality management system is produced by a 3rd party Registrar. It is the responsibility of each supplier to provide DCI with an up-to-date copy of their applicable certificates.

Should the re-issuing of a certificate be delayed, the supplier must notify DCI supplier quality BEFORE the current certificate expires and provide the new re-certification timeline and target date. The supplier shall then send a copy of the certificate upon successful recertification.

Certification status is a key component to doing business with DCI and can significantly impact your supplier standing should you not obtain or lose a certification.

Exemption:

Certain suppliers may be exempt from the certification requirement depending upon the nature of the material, parts, services or business unit within DCI that they serve. This exempt status is determined by DCI supplier Quality and Procurement by evaluating risk.

Examples of a supplier who may be considered exempt from registration requirements are:

- Fast proto-typing suppliers.
- Suppliers of non-production related material or services.
- Suppliers delivering catalogue items.

If requested by Donaldson, Supplier shall include with each shipment certain specified certificates of analysis and/or test and inspection. The cost for establishing and shipping such certificates shall be borne by the Supplier in case of non-conformity or deliveries subject to inconsistencies of quality.

2.3 Non-Conforming Products, Materials and Services

When a Non-Conformance is found, DCI will issue a non-conformance report (NCR), along with a request for corrective action. The corrective action request will specify one of two formats: fast-track corrective action or a full 8D (as described below). NCR reports will be issued by DCI plant or distribution center quality and sent to the supplier via email for processing/completion.

Fast-track corrective action: This is a short version of a corrective action designed to be used for non-critical issues such as one-time labeling errors, or ship damage complaints. These requests require an emailed response that provides DCI with root cause investigation information and corrective action plan within 15 calendar days.

8D Requirements: For the majority of non-conformances an 8-step problem solving approach (8D) will be requested. When an 8D is required the "DCI 8D" form will be sent along with the NCR to the supplier. These requests require proof of the use of either a 5why or fishbone diagram (included on standard form) to help determine and document the root cause.

The 8 Steps of an 8D corrective action are:

1. Establish the team
2. Describe the problem
3. Develop interim containment actions
4. Define and verify root cause
5. Choose and verify permanent corrective action
6. Implement and validate permanent corrective action
7. Choose actions to prevent recurrence
8. Approval and Closure – recognize the team!

Timing requirements for completing 8D's are:

- Containment actions- through Step 3 are required within 24 hours
- Root Cause and corrective action steps 4-5 are required within 15 calendar days of original request
- Steps 6-8 are required to be closed within 60 calendar days and should include implementation and verification

It is within the discretion of the initiator of the 8D to grant extensions or shorten these dates depending on the circumstances.

Costs associated with defective or non-conforming products or materials that include dispositions of product, sorting costs, and rework or inspection costs will be charged to the supplier along with an administration fee per NCR.

Should a Donaldson Plant production line be interrupted as a result of defective or non-conforming products or late deliveries from a supplier, Donaldson reserves the right to charge the associated cost to the supplier. Those line-stop charges may include but are not limited to: machine or line set up, parts or material inspection and sorting, material handling, product expediting, Donaldson production and customer downtime. The amount claimed may vary by the type of operation, production line and of the number of people involved.

Inspection and audit of manufacturing facility. The Supplier agrees that it will, at any time, make its production facilities open for inspection by Donaldson to audit the systems and processes used to manufacture and inspect the Products and Services supplied. Donaldson shall generally announce such inspection at least two (2) business days in advance.

Inspection of Parts. Donaldson has the right, but not the obligation, to inspect the "Products and services" at any time, including inspection upon delivery or the production of the related Donaldson's finished item. The Supplier shall replace Products and Services that are defective or do not meet Donaldson drawings and/or specifications. Donaldson, after having informed the Supplier, may at its option sort and rework defective Parts in order to provide acceptable product for Donaldson's use, in which event the Supplier shall reimburse Donaldson for all costs involved.

2.4 Sub Supplier Requirements

We encourage our suppliers to have sub-supplier relationships that maintain a management system in accordance with the current revision of ISO 9001 as a minimum. DCI reserves the right to directly assess a Tier 2 supplier that has a significant impact on final quality at DCI. Tier 1 suppliers will be held responsible for the products and services they provide including items supplied to them from Tier 2 suppliers.

We expect our suppliers to ensure their sub-suppliers:

- Have a quality focused approach to ensure that measures are taken to minimize the probability of defective products occurring
- Have processes in place to identify and quarantine defects early in their processes
- Maintain data and documents to ensure and prove if needed that products have been manufactured in accordance with all relevant laws and safety standards, to include Production Part Approval Process documentation
- Have processes in place to communicate any product, process or supply chain change prior to implementation
- Implement risk-based thinking into their processes and quality management systems
- Obtain or work towards certification to ISO9001, IATF16949 or AS9100 as applicable

3.0 Supplier Assessment

Corporate Procurement and Supplier Quality will identify the status of the supplier's business operating system using assessment tools that may include questionnaires, surveys, on-site visits, and audits. The assessment identifies the supplier's capability to support DCI by having documented effective systems in place to meet or exceed this standard.

Supplier assessment is accomplished by a self-completed questionnaire and/or by an on-site quality system survey/assessment conducted by DCI Supplier Quality or Procurement. Corporate Procurement is responsible for the assessment of new suppliers in terms of their financial strength and business management.

If successful, a supplier is first identified as an "Approved supplier". Strategic suppliers are identified and developed from the pool of Approved suppliers by the Donaldson Supply Management Team. Strategic Suppliers deliver (proprietary) products, services and/or technology which create competitive advantage for Donaldson.

The Donaldson Supply Management Team typically consists of representatives from plant and corporate staff departments in Procurement, Quality and other functions as required and is responsible to assess, select, develop, retain or replace the strategic supply base. Donaldson expects all Suppliers to excel at and maintain quality, delivery and service levels. In return, Donaldson strives to award a greater portion of business towards Strategic Suppliers.

We intend to update the quality system assessment of strategic suppliers on a biannual basis. All updates and changes will be immediately communicated to suppliers.

4.0 Supplier Development

DCI will develop its supply base using the current revision of ISO9001 and/or IATF16949 as the fundamental quality system requirement.

DBV provides measurements and a structure for identifying actions to improve supplier quality and service performance. Donaldson will schedule regular meetings (a minimum of once per year) with strategic suppliers to review current performance and discuss if necessary, any improvement opportunities. For more information on DBV please refer to manual located at: <https://www.donaldson.com/en/supplier/dbv/index.html>

Each supplier is expected to have a management system in place that addresses the following elements of their business.

The following elements below will be reviewed and considered when identifying improvement opportunities.

1. Statutory & regulatory requirements
2. Quality management system
3. Management responsibility

4. Resource management
5. Product realization
6. Measurement, analysis and improvement
7. Environmental management
8. Code of Conduct

5.0 Risk Focus

Suppliers are responsible for evaluating and minimizing all possible risks that have been identified as early as possible. Suppliers are required to apply all appropriate preventative quality planning methods during development phases of both products and processes which include at a minimum: feasibility analysis, reliability studies and risk analysis.

Suppliers should apply this same risk-based thinking to current product, process design and improvement as well and are strongly urged to ensure their sub-suppliers have also appropriately included risk-based thinking into their systems.

Suppliers shall deliver to Donaldson a Contingency Plan detailing how Suppliers plan to avoid supply chain interruption due to natural disasters, fire or infrastructure/asset related disruptions. The initial Contingency Plan shall be delivered to Donaldson latest upon grant of regular deliveries. This Contingency Plan shall be reviewed & re-submitted yearly for the existing and new Donaldson parts.

6.0 Advanced Product Quality Planning

Advanced Product Quality Planning (APQP) is achieved by a cross-functional team that includes supplier representative(s), as appropriate. Planning occurs in phases requiring outputs (deliverables) from each phase. These outputs are verified and agreed to by management before closing out a phase and continuing the work-in-progress in the next phase. As indicated by a request/notification from Corporate Procurement, a supplier may participate in DCI's APQP. Formal notice may be via Request for Quote (RFQ), Purchase Order (PO), or other written method (e-mail).

For more complex projects, the supplier may be required to work with CAE/CAD systems, and be required to supply preliminary drawings, documents, and prototypes.

Suppliers receive engineering drawings from the assigned corporate category manager with each RFQ. Each RFQ submission will be revision specific indicating the suppliers understanding of the requirements of the print. Suppliers are responsible for ensuring that they understand all requirements of the drawing and specification requirements. Any required clarification is to be resolved including documentation prior to finalizing tooling or commencing production.

Table 1 below illustrates the possible output (deliverables) which may result for a given project.

Table 1

Planning	Product Design & Development	Process Design & Development	Product Process & Validation	Feedback, Assessment & Corr. Action
Design Goals	DFMEA	Packaging Standards	Production Trial Run	Reduced Variation
Reliability & Quality Goals	Design for Manufacturability & Assembly	Product/Process Quality System Review	Measurement Systems Evaluation	Improved Customer Satisfaction
Prelim BOM	Design Verification	Process Flow Chart	Prelim Process Capability Study	Improved Delivery & Service
Prelim Process Flow Chart	Design Reviews	Floor Plan Layout	Production Part Approval PPVP	Effective use of Lessons Learned & Best Practices
Prelim Special Product & Process Characteristics	Prototype Control Plan	Characteristics Matrix	Production Validation Testing	
Product Assurance Plan	Engineering Drawings	PFMEA	Packaging Evaluation	
Management Support	Engineering Specifications	Pre-Launch Control Plan	Production Control Plan	
Program Timing	Material Specifications	Process Instructions	Quality Planning Signoff & Management Support	
Resource Plan	Drawing & Specification Changes	Measurement Systems Analysis Plan		

	New Equipment, Tooling, & Facilities Requirements	Prelim Process Capability Study Plan		
	Special Product & Process Characteristics	Packaging Specifications		
	Gage/Test Equip Requirements	Management Support		
	Team Feasibility Commitment & Management Support			

7.0 Supplier Production Part Approval Process (SPPAP)

The Supplier Production Part Approval Process (**SPPAP**) assures purchased materials, parts, and assemblies meet DCI specified requirements by determining:

- All DCI engineering drawing and specification requirements are properly understood by the supplier.
- The supplier's manufacturing process has the capability to produce product meeting those requirements during an actual production run at the quoted production rates, using production tooling, gauging, processes, materials, operators, environment, and process settings, from parts that are taken from a significant production run.

Significant production run requires a minimum of 30 samples from the Validated process and Production Run Rate:

- Per Cavity
 - Each cavity captured within a tool die

An SPPAP is specific to a part number/revision level. SPPAP is patterned after the Production Part Approval Process (PPAP) available from AIAG at www.aiag.org.

Suppliers are asked to follow regional procedures of Donaldson Procurement and Quality for SPPAP submission.

An SPPAP is required to be completed by the supplier for the following reasons:

- a new or revised part
- parts from a new or revised tool
- parts from a changed supplier process or a change in material
- parts that have been produced by tools or equipment that have been transferred to a new location
- as determined by DCI (re-release of inactive part, correction of a discrepancy, etc.)

Exception: At this time, SPPAP may not be required for bulk materials such as chemicals (e.g. urethane), steel (e.g. rolls, sheets, or structural steel), and standard catalogue items or materials compliant to international design standards (i.e. SAE, DIN, AFNOR, BIS, EN, ISO...). It is also not required for packing materials or electronic goods such as fans, motors, control panels, and circuit boards. This expectation does not exclude the confirmation of conformity to Donaldson requirements. It is mandatory that all the parts/materials meet Donaldson specifications. The confirmation of conformity could be requested or retained on file by the supplier. All other direct material/inventory purchased products, including purchased Finished Goods, require an SPPAP.

Note: Since most products are not subject to further inspection after they leave the supplier, the supplier is responsible to assure the conformance of the product to drawings and specifications. Parts sent to any Donaldson location prior to SPPAP Approval must be marked accordingly (i.e. part number, revision, and non-approved parts).

7.1 Submission/Retention Requirements

The inclusion of various deliverables in the SPPAP is determined by the Category Manager in consultation with the cross-functional design team as appropriate. The requirements are communicated to the supplier via the RFQ and PO. The submission schedule for final approval is communicated via the PO when the engineering drawings are available and released.

The submission level is determined considering the following factors. The default submission level is Level 3.

- Part criticality
- Supplier expertise with a specific commodity
- Experience with prior part submission

Catalogue parts (e.g. bolts and nuts) are identified and/or ordered by functional specifications or by recognized industry standard.

NOTE:

- Preliminary process capability studies are intended to be performed on a production run producing at least 300 units. Both CPKs and PPKs must be reported for all significant/critical characteristics. CPK's for those characteristics must be greater than or equal to 1.33 and PPK's must be greater than or equal to 1.67. (DCI critical characteristics are identified by a black diamond on the print.)
- This requirement also applies to processes that may be performed by sub-contract suppliers.
- If applicable, suppliers must submit a corrective action plan on low CPK processes defining actions for improvement.
- Any specific DCI requirement must be met.

See next page for SPPAP Submission Level Guidelines Table 2

Table 2

SPPAP Level	Submittals	Initiating Event (Examples)
Level 3 (Default)	Submit all items as indicated in the Retention/ Submission Requirements Table.	<ul style="list-style-type: none"> • New product or Supplier • POM Change • Revised product for which changes affect form, fit, function, reliability or performance
Level 1	Submit PSW and Appearance Approval Report (if required) only. All other documents are updated and retained by the Supplier.	<ul style="list-style-type: none"> • Non-product-impacting revisions (process/ specification changes not impacting product/material)/ part-print agreement • Directed-buy parts
Level 2	Submit PSW and all items as indicated in the Retention/Submission Requirements Table. All other documents are updated and retained by the Supplier.	<ul style="list-style-type: none"> • Revised product/tooling • Movement/transfer of tooling/equipment • Qualification of additional tooling/equipment • Product produced after tooling has been inactive for volume production for 12 months or more • Use of new construction or material than what used in the previously approved part <p>*Control Plan, Dimensional report, and Capability Study and GR&R report if revised characteristic is a Significant Characteristic</p>
Level 4	Submit PSW and all other required documents as defined by Donaldson. All other documents updated and retained (as applicable) or waived.	<p>Customizable</p> <p>Ideal for <u>Catalog items/Commercial off-the-shelf (COTS)</u> parts in which the supplier needs to submit a signed warrant, material cert (if applicable) and copy of catalog specifications.</p>
Level 5	Submit Part Submission Warrant and product samples. All required documents updated and retained at supplier location for review on-site as necessary.	Applicable for suppliers with proprietary processes and documents (e.g. PFMEA, Control Plan, etc.).

7.2 Retention/Submission Requirements Table

Table 3

Retention/Submission Requirements Table						
Requirement		Submission Level				
		Level 1	Level 2	Level 3 (Default)	Level 4	Level 5
1	Design Record (2D Drawing)	R	S	S	*	R
2	Engineering Change Documents (if any) such as CQP/ECO/ECP	R	S	S	*	R
3	Donaldson Engineering Approval if required.	R	R	S	*	R
4	DFMEA	N/A	N/A	N/A	N/A	R
5	Process Flow Diagram	R	R	S	*	R
6	PFMEA	R	R	S	*	R
7	Control Plan	R	R	S	*	R
8	Measurement Systems Analysis (GR&R)	R	R	S	*	R
9	Dimensional Report	R	S	S	*	R
10	Material/Performance/Functional Test Results and Catalog/Spec Sheet detail.	R	S	S	S	R
11	Initial Process Studies (Short-term Capability Study)	R	R (unless revision is to Significant Characteristics)	S	*	R
12	Qualified Laboratory Documents (from outside facility the supplier may use).	R	R	S	*	R
13	Appearance Approval Report (rare)	S	S	S	*	R
14	Sample product (1 piece from each cavity).	R	S	S	*	R
15	Master Sample	R	R	R	*	R
16	Checking Aids	R	R	R	*	R
17	Records of compliance with Donaldson-specific Requirements (not defined on drawing or EN).	R	S	S	S	S
18	Parts Submission Warrant (PSW)	S	S	S	S	S
19	Global Material Compliance Standard Declaration Request Form – 428.005.001 or Supplier's own form containing the same information	R	R	R	R	R

S = The supplier shall submit to Donaldson and retain copy of records or documentation items at appropriate locations.

R = The supplier shall retain at appropriate locations and make available to Donaldson upon request.

*= The supplier shall retain at appropriate location and submit to Donaldson upon request

7.3 Notification of Changes

A changed process is one that affects appearance, dimensional, or reliability/performance characteristics. Other changes subject to the notification requirement may include, but are not limited to, tool repairs or modifications, equipment transfers, transfers to alternate sites or sub-contractors, and material substitutions. Notify the DCI assigned corporate category manager of all process changes for a determination of acceptance or next steps prior to implementing the change.

- a. All part and process changes must be officially communicated to Donaldson at least 12 weeks prior to effective date of the change. The Part, Process, or Point of Manufacture Change Agreement (**406.205.000-008**) is one of the required documents submitted for new supplier set up.
- b. Use the Part, Process, and/or Point of Manufacturing Change Request Form (**406.205.000-007**) when a change is required.
- c. Supplier actions will take place only after formal notification and an agreement is reached on what steps are to be taken and the price impacts associated with the change.
- d. The supplier is obligated to inform DCI in advance of any changes to their manufacturing processes on any DCI part. Before changes can be made, the supplier must receive an agreement from DCI to the changes and the impacts associated with them.
- e. In most instances, the changed part and/or process will require that the part be re-validated. A Donaldson Representative will notify you of the requirements.
- f. In case of breach of this Chapter (7.3), Supplier is asked to reimburse any potential losses caused by unauthorized change.

Any Product and Service that is controlled by the supplier shall have enough technical documentation to enable DCI to verify its integrity.

8.0 Material Compliance

Donaldson expects its Suppliers to be fully aware of all legislated requirements in the country they reside, as well as, the Products and Services they supply and the process they use to manufacture those such Products. To comply with regulatory obligations, Donaldson sends regular questionnaires about use of restricted substances. Suppliers are expected to reply to questionnaires in due time and free-of-charge and/or contact their Procurement contact in case of concerns/questions. Main topics are listed but not limited to below:

8.1 RoHS

The Restriction of Hazardous Substances Directive 2011/65/EC, (RoHS 2), short for Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment, was adopted in June 2011 by the European Union. Goods supplied to Donaldson must comply with restrictions for the prohibited ten substances: 1. Lead (Pb) 2. Mercury (Hg) 3. Cadmium (Cd) 4. Hexavalent chromium (Cr6+) 5. Polybrominated biphenyls (PBB) 6. Polybrominated diphenyl ether (PBDE) 7. Bis(2-ethylhexyl) phthalate (DEHP), 8. Butyl benzyl phthalate (BBP), 9. Dibutyl phthalate (DBP), 10. Di-isobutyl phthalate (DIBP). This list may change based on updates made to the legislation.

8.2 Declarable Substances

Products and parts supplied to Donaldson must be free of prohibited substances per GLOBAL DECLARABLE SUBSTANCES LIST (GADSL, see <http://www.gadsl.org>). The declarable substances in excess of the threshold limits defined in GADSL must be reported.

8.3 REACH

Suppliers to Donaldson should be aware of and fully comply to the REACH (Registration, Evaluation, Authorization & Restriction of Chemicals) regulations. One of the major elements of the REACH regulation is the requirement to communicate information on chemicals up and down the supply chain. The list of harmful substances is continuously growing and requires organizations to constantly monitor any announcements and additions to the REACH scope. This can be done on the European Chemicals Agency's website.

8.4 Conflict Minerals

Suppliers to Donaldson should be aware of and fully comply to the present and future legislations regarding use of Conflict Resources. As an American company, Donaldson is obliged to audit its supply chains and report usage of conflict minerals as per the 2010 Dodd–Frank Wall Street Reform and Consumer Protection Act. The four most prominent Conflict Minerals are cassiterite (for tin), wolframite (for tungsten), coltan (for tantalum), and gold ore (3T's and Gold) but additional minerals may be added to this list in the future.

8.5 California Proposition 65 Warning

The official name of Proposition 65 is the Safe Drinking Water and Toxic Enforcement Act of 1986. It requires businesses to provide warnings to Californians about significant exposures to enlisted chemicals that cause cancer, birth defects or other reproductive harm. Suppliers to Donaldson should be aware of and fully comply to the present and future legislations regarding the use of enlisted chemicals under Proposition 65.

9.0 Supplier Held Assets

Suppliers should recommend and/or select manufacturing processes and assets which assure that their production parts meet specified requirements.

Assets may be but not limited to Tools, Jigs, Testing Equipment and Machinery.

Supplier asset recommendations are solicited via RFQ by the assigned corporate category manager and are evaluated on a best overall (total part) cost considering the estimated part volume, the asset cost, and the expected life. Authorization for supplier held asset(s) is only by purchase order from the assigned Procurement personnel.

A) Asset Ownership

DCI's standard practice is to purchase and own the assets used to produce DCI proprietary parts. Parts made from DCI owned assets shall not be sold to other parties or used for other purposes without the written approval of DCI. Terms and conditions for assets owned by DCI customers and managed by DCI will be conveyed via the PO authorizing the build or purchase of the asset.

DCI will provide an asset number. This Asset number shall be permanently and legibly marked on the asset. Any additional asset identification requirements will be conveyed via the authorizing purchase order. Fulfillment of the asset purchase order also requires approval of the supplier production part approval process (SPPAP).

B) Asset Management

Payment, storage, maintenance, rework, modifications or replacement, disposition, record keeping, and audit of the assets will be governed as per Donaldson's asset management requirements which will be submitted to the Supplier during RFQ phase and/or PO submission.

10.0 Pricing Policy

DCI is always open to our supplier's suggestions on ways to decrease cost. We expect that our suppliers will pursue activities that will provide a minimum of 2% of the total amount of Products and Services sold to Donaldson in annualized cost savings.

If it becomes necessary to review your prices, we have the following as a minimum requirement:

- 90 days written notification of the proposed price increase
- Supporting documentation, including labor, material, and overhead cost justification
- Complete list of all parts affected that includes the old and new prices
- Off-setting cost reduction proposals

11.0 Quoting

The quoting process is an important part in decreasing our "time to market". This "time" is continually shrinking, and it is becoming necessary that Donaldson has the ability to quote products and projects faster. It is our goal to have suppliers who can respond with their best quote in a 24 to 48-hour time frame (where applicable).

12.0 Continuous Improvement

Donaldson expects its Suppliers to embrace Continuous Improvement (CI) philosophy throughout its end-to-end processes. Therefore, Donaldson asks its Suppliers to submit CI initiatives through its Donaldson Buys Value supplier scoring program. These initiatives are agreed between Category Managers and Supplier representatives and are awarded 50 points upon successful completion. Such projects may include but are not limited to removing downtime, scrap, waste (less human effort, less space, less capital, ...), fewer defects by building quality in, reducing lead time, ...

Throughout these efforts, Supplier agrees to constantly strive for cost reductions and to disclose such reductions to Donaldson for the compensation of any future increases in the cost of material or labor or for reducing the respective prices. Donaldson is prepared to cooperate in any cost reduction efforts if beneficial.

13.0 Forms and Instructions

The following forms are considered “generic” and are available from several sources including AIAG at www.aiag.org (see below). Printed or electronic versions may be available by calling the Procurement / Category Manager.

- Process Flow Diagram
- Process Failure Mode and Effects Analysis

- Quality/Process Control Plan
- Potential Process Capability
- Dimensional Report
- Material certification
- Packaging Requirements
- Handling / Storage

Donaldson specific forms for price changes or part, process and/or point of manufacture can be found at:

<https://www.donaldson.com/en/supplier/forms/index.html>

14.0 References

Our supplier site at donaldson.com contains information and additional resources including Aerospace and Defense requirements, our standard terms and conditions and our Supplier Code of Conduct.

The site can be found at: <https://www.donaldson.com/en/supplier/forms/index.html>

The following are available by contacting AIAG, Automotive Industry Action Group, +1 (248) 358-3003 or at www.aiag.org :

- Quality System Requirements (IATF16949)
- Quality System Assessment (QSA)
- Advanced Product Quality Planning (APQP)
- Measurement Systems Analysis Manual (MSA)
- Statistical Process Control Manual (SPC)
- Production Part Approval Process (PPAP)
- Potential Failure Mode and Effect Analysis (FMEA)

15.0 Glossary

APPROVED means that the parts and/or related documentation submitted to or reviewed by Donaldson meet all Donaldson requirements. After production validation the supplier is authorized to ship product as directed by the plant/customer.

CAD/CAE MATH DATA is a form of design record by which all dimensional information necessary to define a product is conveyed electronically. When this design record is used, the supplier is responsible for obtaining a drawing to convey results of dimensional inspection.

CHECKED PRINT is a production released engineering drawing with **actual measurement results** recorded by the supplier adjacent to each drawing dimension and other requirements.

CONFORMANCE means that the material meets Donaldson specifications and requirements.

CONTROL PLANS are written descriptions of the system for controlling production parts and processes. They are written by suppliers to address the important characteristics and engineering requirements of the product. Each part must have a Control Plan, but in many cases, “family” Control Plans can apply to a number of parts produced using a common process.

DESIGN RECORD is the part drawings, specifications, and/or electronic (CAD) data used to convey information necessary to produce a product.

FAILURE MODE AND EFFECTS ANALYSIS (FMEA) is a systematized technique which identifies and ranks the potential failure modes of a design or manufacturing process in order to prioritize improvement actions.

GAGE R&R refer to the AIAG Measurement System Analysis reference manual.

INTERIM APPROVAL permits shipment of products for a specified time period or quantity.

MARKED PRINT is an engineering drawing modified, signed and dated by the Donaldson engineer (the engineering change number must be included).

MEASUREMENT SYSTEM VARIATION STUDIES refer to the AIAG Measurement System Analysis reference manual.

PROCESS is a combination of people, equipment, methods, materials, and environment that produces output - a given product or service. A process can involve any aspect of a business.

PROCESS FLOW DIAGRAM depicts the flow of materials through the process, including any rework or repair operations.

PRODUCTS and SERVICES include all output categories (hardware, services, software and processed materials).

PRODUCTION RELEASE DRAWING is an engineering drawing signed by the engineer and released through the Donaldson system. The drawing is forwarded to the supplier via Donaldson Corporate Procurement.

PRODUCTION PART VALIDATION SUBMISSIONS are based on small quantities of parts taken from a significant production run made with production tooling, processes, and cycle times. The supplier checks parts for production part validation to all engineering requirements.

PRELIMINARY PROCESS CAPABILITY Studies are short-term studies conducted to obtain early information on the performance of new or revised processes relative to internal or customer requirements. In many cases, preliminary studies should be conducted at several points in the evolution of new processes (e.g. at the equipment or tooling subcontractor's plant, after installation at the supplier's plant). These studies should be based on as many measurements as possible. When X-Bar and R charts, at least twenty subgroups (typically three to five pieces) are required to obtain sufficient data for decision-making. When this amount of data is not available, control charts should be started with whatever data is available. (Refer to AIAG's Fundamental Statistical Process Control reference manual.)

QUALITY PLANNING is a structured process for defining the methods (i.e. measurements, tests) that will be used in the production of a specific product or family of products (i.e. parts, materials). Quality planning embodies the concepts of defect prevention and continuous improvement as contrasted with defect detection (see AIAG's Advanced Product Quality Planning and Control Plan reference manual).

REJECTED means that the production part submission and/or documents did not meet the customer's requirements. The supplier must correct the production process and make a new submission. (Advise Donaldson Corporate Procurement of the date when corrected parts will be available.) Do not ship production parts until the DCI approves the corrected parts. DCI may withhold tooling payments until part approval is obtained.

REPEATABILITY AND REPRODUCIBILITY, GAGE (GAGE R&R) Refer to AIAG's Measurement System Analysis reference manual.

SIGNIFICANT CHARACTERISTICS are those product features that affect subsequent operations, product function, or customer satisfaction. Significant characteristics are established by the Donaldson engineer, quality representative, and supplier personnel from a review of the Design and Process FMEAs and must be included by the supplier in the Control Plan. Any significant characteristics included in engineering requirements are provided as a starting point and do not affect the supplier's responsibility to review all aspects of the design, manufacturing process, and customer application and to determine additional process parameters.

SPECIFICATIONS are engineering requirements for judging the acceptability of a part characteristic. For the production part validation process, every feature of the product as identified by engineering specifications must be measured. Actual measurement and test results are required. Specifications should not be confused with control limits that represent "the voice of the process".

SUPPLIERS are defined as providers of production materials, or production or service parts, directly to DCI. Also included are providers of heat-treating, painting, plating or other finishing services.

STATISTICAL CONTROL is the condition of a process from which all special causes of variation have been eliminated and only common causes remain. Statistical control is evidenced on a control chart by the absence of points beyond the control limits and by the absence of any non-random patterns or trends. (**STATISTICAL CONTROL** is a descriptive term for a **STABLE PROCESS**.)

SUBMISSION LEVEL refers to the level of evidence required for production part submission.

TOOLING MAINTENANCE is the periodic sharpening, polishing, or other servicing of a tool. This maintenance will not significantly affect the dimensions or other characteristics of the product produced by the tool (contrast with **TOOLING REFURBISHMENT**).

TOOLING REFURBISHMENT is the major overhaul of a tool. Refurbishment can affect dimensions or other characteristics of the product produced by the tool. Production part approval submission of product made with refurbished tools is required before such product may be shipped to the customer.

WARRANT is an industry-standard document required for all newly-tooled or revised products in which the supplier confirms that inspections and tests on production parts show conformance to customer requirements.

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