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BROAN GLOBAL SUPPLIER MANUAL



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1. OVERVIEW

1.1 Purpose

The purpose of this Global Supplier Manual is to provide the basis for a working relationship with our suppliers - beyond the purchase order- by defining and communicating the minimum requirements and expectations for providing direct materials or services to Broan. Throughout this manual, “Broan”, “we” or “our” shall include Broan and its affiliates. Broan fully expects suppliers to work hand in hand with us on continuous improvement projects for the high quality, technologically advanced products and services we provide to our customers.

Together, our drive for excellence along with close working relationships will enable all parties to continuously improve and become leaders in a world-class supply base. Our joint goal will be the satisfaction of all our customers.

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1.2 Scope

This document applies to all components, finished goods and/or services used in the production of our products in our U.S, Canada, Mexico and China manufacturing plants, and the global distribution of our product lines. It seeks to communicate the quality and standards required of our suppliers. This document shall serve as a guideline for conducting business with Broan but should not be considered all-inclusive of our supplier requirements. Suppliers are encouraged to provide feedback regarding the content of the manual for the purpose of continuous improvement and to ensure an effective working document. This document may be updated at any time at Broan's sole determination.

1.3 Terms and Definitions

- **Advanced Product Quality Planning (APQP)**: a structured process that defines and establishes the necessary steps to ensure product meets customer requirements.
- **Control Plan**: a method for documenting the functional elements of quality control that are to be implemented in order to assure that quality standards are met for a particular product or service.
- **Critical to Quality (CTQ)**: The critical elements called out in a drawing that the supplier needs to focus on while manufacturing, and the characteristics that Broan will request for capability analysis and Gage R&R / MSA requirements.
- **Design Failure Modes and Effects Analysis (DFMEA)**: a methodical approach used to identify potential risks introduced in a new or changed design of a product or service. The DFMEA initially identifies design functions, failure modes and their effects on the customer with corresponding severity ranking / danger of the effect. Then, causes and their mechanisms of the failure mode are identified.
- **Design Verification Plan and Report (DVP&R)**: an element of the PPAP process that documents the plan that will be used to confirm that a product, system or component meets its design specifications and performance requirements and summarizes the results of every test performed on the part. This summary lists each individual test, when it was performed, the specification, results and the assessment "Pass / Fail". If there is an Engineering Specification, it is typically noted on the drawing.
- **Deviation**: the license to use the parts out of the product specification. It typically comes with conditions and are temporary in nature (aka: "**TSCA**" – Temporary Specification Change Authorization).

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- **Engineering Change Process (ECO/ECN)**: the formal process for the implementation of changes to the product or process.
- **Gage Repeatability and Reproducibility (Gage R&R)**: a specific measurement system analysis using 2 or 3 operators (or measurement tools), 5 to 10 parts or items, and 2 to 3 repeat measurements.
- **Deviated**: a PPAP approval status to use parts under deviation or other conditions as specified by Broan.
- **Measurement System Analysis Studies (MSA)**: usually contains the Gage R&R (Repeatability and Reproducibility analysis Report) for the critical to quality characteristics, and a confirmation that gauges used to measure these characteristics are calibrated.
- **New Product Development (NPD)**: a structured process for the development of new products within Broan.
- **Part Submission Warrant (PSW)**: a document that summarizes the PPAP package and the approval of the part or process. This form shows the reason for submission (design change, annual revalidation, etc.) and the level of documents submitted to the customer.
- **Process Capability (Cp)**: the ability of a process to produce output within specification limits.
- **Process Capability Index (Cpk)**: a measure of the capability of a production process to produce parts within given upper and lower variability limits (tolerances).
- **Process Failure Modes and Effects Analysis (PFEMA)**: an analytical technique used to identify potential failures of a process and provides a solution to mitigate the potential problems through enhanced process controls or increased detection controls.
- **Production Part Approval Process (PPAP)**: an approval process for new or revised parts, or parts produced from new or revised production methods.
- **Shall/Should**: where found herein, “shall” is a REQUIRED element; “should” is a RECOMMENDED element.

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- **Supplier Self-Assessment Form:** detailed questionnaire completed by the supplier prior to request for quote or further engagement.
- **Supplier Readiness Review (SRR):** an in-depth review held at the supplier's location that evaluates potential risks to quality or supply and outlines critical risks that require corrective action. These reviews are led by a Broan Quality representative and Commodity or Purchasing Manager and requires input from key contacts at the supplier's location.
- **Supplier Scorecard:** a report on performance of the supplier for periodical evaluation of service, on time delivery and shortages or overages of quantity ordered as well as product quality.
- **Temporary Specification Change Authorization (TSCA):** the formal permission to use parts that are not in compliance and is temporary in nature.

1.4 Quality Philosophy and Total Customer Satisfaction

Broan is committed to delivering technically advanced, high quality products that exceed customer expectations. We have an ongoing focus on Continuous Improvement and Lean manufacturing, and we are committed to working with the best suppliers to help us achieve these objectives.

We strive to achieve Total Customer Satisfaction through partnership and cooperation, having a positive impact on the performance and development of our suppliers to deliver competitive products and services on time. We expect our suppliers to establish and maintain efficient processes, procedures and tools to pursue a "zero tolerance" defect approach.

Broan will provide suppliers with data, information, and feedback to effectively develop, implement, and maintain a robust quality plan. The supplier shall accept ultimate responsibility for the quality of their products and services. We will support the supplier's efforts but will not be responsible for implementation of cost and quality improvement programs such as scrap reduction, Lean Manufacturing, etc. This manual provides the basis for establishing and maintaining mutually beneficial relationships between Broan and our suppliers.

Together, we achieve Total Customer Satisfaction with:

- Quality products that fully meet specifications
- On-time delivery
- Best in class processes

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- Lowest cost to value ratio
- Effective inventory management systems
- Technical knowledge and innovation

- Highest quality service and support
- Continuous improvement
- Shared goals, and
- Commitment to the business relationship

This manual describes the specific requirements and minimum level of expectations of our suppliers.

All suppliers are required to read and fully understand the contents of this document and agree to adhere to all requirements as specified herein. Suppliers are encouraged to provide feedback regarding the content of this manual for the purpose of continuous improvement and to ensure we have supplied an effective working document.

1.5 Sub-supplier control

In order to ensure the quality of products delivered to Broan, it is necessary to have systems in place to manage the parts and material received from the next tier level suppliers. Broan's suppliers are responsible (i) to communicate our requirements to their sub-suppliers, (ii) to ensure that the requirements are understood and controlled by their sub-suppliers, and (iii) to ensure that all parts/materials received from their sub-suppliers meet Broan's requirements. Broan suppliers are held fully responsible and accountable for the performance of their sub-suppliers. Throughout this document, the word "suppliers" shall mean the supplier to Broan, and their sub-suppliers. Broan reserves the right to request formal documentation as verification that our suppliers and their sub-suppliers meet our requirements.

2. Becoming a Broan Supplier

New suppliers may be considered where improved quality, value and/or technical advantages can be achieved.

The process to be considered as a supplier to Broan involves a number of steps:

1. The supplier and the appropriate Broan representative discuss the opportunity. If both parties agree to move to the next step, the supplier will be required to complete Broan's Supplier Self-Assessment Form and Mutual Non-Disclosure Agreement (NDA).
2. Broan will review the submitted documents, and if appropriate, the supplier may also receive a Request for Quote (RFQ) or Request for Proposal (RFP).

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3. The final step before engaging with a supplier is an on-site Supplier Readiness Review conducted by a Broan Quality representative and the appropriate Commodity Manager. This 2-3-day audit covers items such as the supplier's policies, procedures, record keeping, production control, and defect management, among others. If the results show that the supplier may have a problem meeting Broan's requirements, the supplier will be required to develop a corrective action plan and propose a timeline to complete. If the supplier does not submit a corrective action plan, or action is not taken to correct the problems revealed during the on-site review, Broan may decline to do business with the supplier.
4. With approval of the on-site review, Broan may place a purchase order for initial samples of the product for approval. A completed Production Part Approval Process (PPAP) document is required to be submitted to Broan's Quality team when the samples arrive. A Quality representative will provide the PPAP documents and notify the supplier as to what level PPAP is required. If the PPAP documents and samples are approved by the Quality team, the buyer may then place ongoing orders for the approved products.
5. Depending on the commodity, frequency of orders, annual quantities and pricing, the Commodity Manager may initiate a negotiation with the supplier to enter into a longer-term Agreement, with specific terms and conditions under which both sides agree to transact business. Without a formal Supply Agreement in place, confirmation and acceptance of the Broan purchase order shall bind the Supplier to the terms and conditions found therein.

3. Compliance 3.1 Compliance with the law

Suppliers will adhere to all applicable local, state, and/or Federal Governmental and Environmental laws and regulations in the geographical location at which the product is manufactured, as well as in the geographical location to which the materials are delivered. Suppliers may also be required, upon notice from Broan, to adhere to

additional Federal, State, or Local Laws and Environmental/Compliance regulations based upon the anticipated location of sale of Broan finished goods. Any materials used in the supplier's manufacturing process shall satisfy all applicable government and safety constraints (current at the time of shipment to Broan) on restricted, toxic and hazardous materials. Suppliers will be held accountable for and shall indemnify and defend Broan against all fines, fees, sanctions, and any suits where the supplier OR THEIR SUB-SUPPLIER is found to be non-compliant with said laws.

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Examples of legal requirements include, but are not limited to:

- Trade Compliance - the process by which goods enter the United States in conformance with all U.S. laws and regulations.
- Global Labor, Anti-bribery, and Corruption laws

The Fair Labor Association (FLA) Code of Conduct (https://www.fairlabor.org/sites/default/files/fla_code_of_conduct.pdf) includes the production of products without the use of any child labor or prison labor and in adequate working conditions to reasonably provide for the health and safety of supplier's employees.

The Fair Labor Standards Act (<https://www.dol.gov/whd/flsa/>) is a federal law, overseen by the U.S. Department of Labor that regulates child labor laws, minimum wage rates, and medical leave, as well as other laws.

The Foreign Corrupt Practices Act of 1977, as amended (<https://www.justice.gov/criminal-fraud/foreign-corrupt-practices-act>) was enacted for the purpose of making it unlawful for certain classes of persons and entities to make payments to foreign government officials to assist in obtaining or retaining business.

- Dangerous materials limitation and origin requirements
All materials used in manufacturing shall satisfy current government and safety constraints on restricted, toxic and hazardous materials. Suppliers and their sub-suppliers shall comply with all environmental laws applicable to the location of their manufacturing site and hazardous material regulations or compliance based on product manufacturing location, delivery destination and sites of distribution. This may include, but is not limited to, items such as
 - ROHS Directives (<https://www.rohsguide.com>)
 - REACH Regulation (<https://www.hse.gov.uk/reach>)
 - Conflict Mineral reporting requirements in the USA (<https://www.sec.gov/opa/Article/2012-2012-163htm---related-materials.html>)
 - Toxic Substances Control Act (TSCA) in the USA (<https://www.epa.gov/laws-regulations/summary-toxic-substances-control-act>)
 - Proposition 65 in California (<https://oehha.ca.gov/proposition-65/about-proposition-65>),

or any other applicable regulations and/or directives enacted in countries in which supplier provides services to Broan, or if specifically instructed by Broan to comply with and/or report on. *NOTE: Any changes to the material process or any government*

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regulation will require recertification by the supplier to ensure compliance with said change(s).

3.2 Safety Data Sheets

Current copies of Safety Data Sheets (SDS) shall be supplied with the initial shipment for all controlled substances covered by law. A PDF copy shall be emailed to the

Purchasing Manager or the buyer placing the orders, and updated copies are to be sent when a revision level change occurs.

For materials supplied in Canada, SDS shall be renewed according to Canadian federal law (see <http://www.hc-sc.gc.ca>)

4. QUALITY SYSTEM REQUIREMENTS

4.1 Quality Management System

Suppliers providing direct materials to Broan are expected to have a robust Quality Management System (QMS) in place that promotes defect free products through prevention, monitoring, and continuous improvement. In addition, suppliers are required to maintain a formal QMS that is either registered to ISO9001 or is fully compliant with this standard. Suppliers may be asked to provide Broan with a copy of the ISO9001 registration certificate for any amendments or renewals to their Quality Management System certification. If the supplier has multiple facilities producing products for Broan, one certificate with a scope covering all production facilities or each individual plant's certificate may be required by the Quality Department. Suppliers shall immediately notify Broan of certificates that have been or are being revoked or placed on probation.

4.2 Communication

Broan strives to develop an excellent working relationship with our suppliers, using frequent and structured communications. Formal, written communication shall be provided to Broan if any changes occur within the supplier's organization, including but not limited to changes of ownership, union contract review (requires six months' notice), and any relocation of manufacturing operations.

The supplier shall act proactively to notify Broan of any known or potential problems or any deviation or risk of not meeting the following requirements, and shall work with Broan to provide appropriate action plans and corrections:

- Plant certification
- Quality documentation and testing
- Production capacity

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- Logistic requirements
- Inability to manufacture or distribute components / assemblies

4.3 New Product Development (NPD)

Broan has a structured process for New Product Development in which APQP is embedded. The NPD process has 6 Stages from Stage 0 to Stage 5 as illustrated below in Figure 1. The goal of embedding APQP into the NPD process is to proactively improve

the product quality at product launch. There may be times when suppliers are requested to submit documents such as a DFMEA or a PFMEA prior to the PPAPs being submitted to ensure that the tasks are taking place in the right part of the process. Requests for

information prior to product launch are part of supplying parts to Broan and information is to be relayed in a timely manner.



Figure 1

4.4 Advanced Production Quality Planning (APQP)

Figure 2 below, shows how APQP is embedded into the NPD process.

Plan and Define Program	Product design and Development Verification	Process Design and Development Verification	Product and Process Validation
Design Goals	Design FMEA	Packaging Standards	Production Trial Run
Reliability & Quality Goals	Design FMEA	Products / Process Quality System Review	Measurement Systems Evaluation
Preliminary Process Flow	Design Verification	Process Flow Chart	Preliminary Process Capability Study
Preliminary Listing of Special Product & Process Characteristics	Design Reviews	Floor Plan Layout	Production Part Approval Process (PPAP)
Product Assurance Plan	Prototype Build	Characteristics Matrix	Production Validation Testing
	Engineering Drawings	Process FMEA	Packaging Evaluation

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	Engineering Specifications	Pre- Launch Control Plan	Production Control Plan
	Material Specifications	Process Instructions	Quality Planning Sign off
	Drawing & Specification Changes	Measurement Systems Analysis Plan	
	New Equip., Tooling & Facilities requirements	Preliminary Process Capability Study Plan	
	Special Product & Process Characteristics	Packaging Specifications	
	Prototype Control Plan		
	Gages/ Testing Equipment Requirements		

Figure 2

5. PPAP (Production Part Approval Process):

The purpose of the PPAP (Production Part Approval Process) submission is to demonstrate that all designs and specification requirements are properly understood by the supplier and that the supplier's processes ensure that they have the capability and capacity to produce products meeting these requirements through a limited production run. This PPAP run shall be conducted using production parts, processes and tooling. The PPAP will be used to establish a high confidence level that the supplier's processes are capable of producing materials, components and finished products that will meet Broan's requirements on an on-going basis.

Broan will notify the supplier of the PPAP level and submission requirements for the products they will produce. The supplier shall work closely with Broan's Quality department to obtain a full PPAP approval on time. It is the supplier's responsibility to prepare and submit the PPAP package provided by Broan prior to shipping PPAP product. Suppliers are also responsible to manage a sub-supplier part approval process. Any changes or modifications to an approved PPAP component shall be addressed through Broan's Engineering Change Process (ECR/ECO), and shall receive prior written approval from Broan.

Important Approval Attributes

- 1) PSW is filled out correctly and signed / dated
- 2) Dimensional results (Sample quantity identified on PPAP request) – 100% in tolerance to the print.
- 3) Print notes – All notes are covered and are compliant to the print.
- 4) The critical to quality (CTQ) characteristics
 - a) Capability equal to or greater than 1.33 Cpk.

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- b) Normally distributed
- c) Sample size no less than 30 parts.
- d) Listed in the PFMEA & Control Plan
- 5) Measurement system analysis (MSA) - provide a gauge R&R report with result of 30% or less (Repeatability & Reproducibility Combined).
- 6) All requested PPAP elements are present in the PPAP package.
- 7) Other criteria – See the PPAP checklist located in the PPAP Template supplied by Broan.

5.1 Circumstances that require a PPAP:

- Initial production of a new or revised component and/or material.
- Correction of any discrepancy on a previous submission (resubmission of a deviated or rejected PPAP).
- Any change in process, tooling or engineering design. This includes tier 2 parts in cases where the tooling is owned by Broan.
- Any change in the supplier's manufacturing location or movement of any or all of the production processes used to manufacture the component.
- Any change in the status of a component and/or material from inactive to active if the inactive period was longer than 12 months or as required by Broan.
- Any change or update to any government laws or regulations (i.e.: REACH, RoHS, Prop65, etc.)

5.2 Tier 2 Supplier PPAPs

- It is the responsibility of Broan's primary supplier to manage PPAPs from sub-suppliers.
- It is expected that as changes occur, PPAPs are being managed in the same manner as defined above.
- PPAPs for Tier 2 suppliers are to be available upon request.

5.3 PPAP Submission Levels and check list

When a PPAP is required, a Quality representative will notify the supplier of the required PPAP level to be submitted with the production samples. The PPAP level indicates the components that are to be submitted and which can be retained. Each part will have all the components of the PPAP completed.

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5.4 PPAP Checklist

The Supplier PPAP form on tab “PPAP Plan” is a checklist to be used to communicate submission requirements to suppliers and shall be included in the package (see Figure 3 below).

Suppliers should use this checklist to ensure that the PPAP package is complete prior to shipping documentation and parts. It is the supplier’s responsibility to prepare and submit the PPAP package provided by Broan prior to shipping PPAP product. Submission level will be sent to supplier to indicate which documents should be included when submitted to Broan. Upon receipt, Broan will evaluate the documents and determine if approval can be granted. The PSW (Part Submission Warrant) will be updated with the appropriate approval status and forwarded to the supplier for their records.

The PPAP requirements include some or all of the following items based on PPAP level.

1. Design Records
2. Engineering Change Documents (if any)
3. Customer Engineering Approval (if any)
4. DFMEA
5. Process Flow Diagram
6. PFMEA
7. Control Plan
8. MSA Studies
9. Dimensional Results
10. Record of Material
 - a. Performance Tests (DVP&R)
11. Initial Process Studies
12. Qualified Laboratory Documentation
13. Appearance Approval Report (AAR)
14. Sample Product Parts
15. Master Sample
16. Checking Aids
17. Customer Specific Requirements
 - a. Packaging Specifications
18. Part Submission Warrant (PSW)

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"S"= Submit		"R"= Retain		* = Custom Request for Submission				
Requirements		1	2	3	4	5		
<u>1</u>	Design Records Ballooned Broan Drawing	R	S	S	*	R		
<u>2</u>	Engineering Change Documents (If any) Supplier Change Request or Pre-Approval	R	S	S	*	R		
<u>3</u>	Customer Engineering Approval (If required) Supplier Deviation Request	R	R	S	*	R		
<u>4</u>	Design FMEA Required if Supplier is responsible for design	R	R	S	*	R		
<u>5</u>	Process Flow Diagram	R	R	S	*	R		
<u>6</u>	Process FMEA	R	R	S	*	R		
<u>7</u>	Control Plan	R	R	S	*	R		
<u>8</u>	Measurement System Analysis Measurement devices used for CTQs	R	R	S	*	R		
<u>9</u>	Dimensional Results Reflects Design Records Ballooned Drawings	R	S	S	*	R		
<u>10</u>	Record of Material	R	S	S	*	R		
<u>10a</u>	DVP&R	R	S	S	*	R		
<u>11</u>	Capability Studies CpK and PpK Study on CTQs	R	R	S	*	R		
<u>12</u>	Qualified Laboratory Documentation Copies of certifications or tests as appropriate	R	S	S	*	R		
<u>13</u>	Appearance Approval Report Not applicable for non-appearance	S	S	S	*	R		
<u>14</u>	Sample Product Clearly Identify components from tab 9	R	S	S	*	R		
<u>15</u>	Master Samples Supplier golden sample, measured on tab 9	R	R	R	*	R		
<u>16</u>	Checking Aids - Pictures Measurement devices calibration status	R	R	S	*	R		
<u>17</u>	Customer Specific Requirements	R	R	S	*	R		
<u>17a</u>	Packaging Specifications Includes Bulk Pack	R	S	S	*	R		
<u>18</u>	Part Submission Warrant (PSW) Required for every submission	S	S	S	*	R		

Figure 3

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5.5 Shipment of PPAP Package / PPAP Samples / Engineering Samples

The PPAP parts shall be packaged with sufficient care and planning in order to prevent damage to the contents. Packages shall be clearly identified/labeled as "PPAP Samples and Documentation". A label or identification shall be affixed to the specific container holding the sample parts. Documentation should be submitted electronically using the appropriate email to the responsible Quality representative and Buyer directly. Please note that the size limit on email submission is 25MB. If your submission is larger, you will need to separate and send separate attachments, or contact your Quality representative.

There may be occasions where Broan's engineering department will order parts for sample purposes. These parts shall be labeled "ENGINEERING SAMPLES".

5.6 Shipment of Initial Production

Broan will NOT accept shipment of any part until the PPAP package is reviewed and approved by the Broan Quality Representative. In situations where the initial production order ships at the same time the PPAP package is submitted, the parts shall be placed in a hold location until a decision is made regarding the submission.

5.7 PPAP Disposition

A Broan Quality representative will review the PSW, and status is applied as follows:

Approved

The supplier is granted full production approval and can begin shipping parts to Broan with a valid and confirmed purchase order.

Deviated

The supplier may be granted a deviated approval for the following reasons:

- Incomplete or incorrect PPAP package (missing and/or erroneous documentation)
- Parts do not meet print requirements (dimensional and/or test failures) identified and a corrective/preventive action plan documented and approved by Broan.
- Material and/or performance testing not yet completed, i.e. long-term environmental testing such as salt spray or corrosion testing.
- An approved deviation is required. To accompany the PPAP on the Customer Engineering Approval Tab of the PPAP template.

Rejected

The PPAP package may be rejected for the following reasons:

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- Documentation does not match Broan requirements as stated on the PPAP checklist.
- Parts do not meet print specifications (dimensional and/or test failures) with no corrective/preventive action plan documented.
- Material and/or performance test failures.

6. CHANGE MANAGEMENT

6.1 Supplier Deviation Request / Product Engineering Change Request

A deviation constitutes limited permission to supply materials, products or components that do not fully comply with the drawings, specifications or standards. Non-conforming material shall never knowingly be shipped to Broan.

Suppliers shall not, under any circumstances, make changes to any parts or manufacturing processes without Broan's prior written approval.

Suppliers can contact their Broan Quality or Purchasing representative to request a deviation or engineering change. The supplier shall submit a Supplier Deviation/Change Request Form (GlobalForm20) to Broan before product shipment, providing the reason and intent of the requested deviation or change. This information shall include the reason for change, date, duration and the quantity of parts affected by the deviation or change.

The supplier shall contribute to the implementation of the engineering change request by providing the following information and support to the buyer:

- Product unit cost modification
- Inventory buildup requirement – planning details and costs
- Packaging changes – cost and/or modification details
- Transportation changes
- Inventory of products from previous drawing revision (Supplier ECN Liability Form),
- New delivery schedule
- Order updates

After Broan has reviewed the request, the supplier will receive a disposition communication. If the affected plant denies the request, Broan will not accept delivery of the non-conforming material. If the affected plant approves the request, the supplier will receive a copy of the approved Form, signed by a Broan representative. The supplier shall include a copy of the signed Form with the shipment. Failure to comply with the process may cause the material to be rejected.

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7. NON-CONFORMING MATERIAL

Non-conforming material (not meeting the required specifications) may be identified during Broan's incoming inspection, or at any point in the manufacturing process. The supplier is immediately notified when their product is identified as non-conforming. The supplier shall have a documented process and procedure in place regarding non-conforming material and take necessary preventive actions for all rejects or non-conforming products.

After notification that a non-conforming product has been received by Broan, the supplier shall contain and inspect 100% of all subsequent shipments that include the identified part number and shall visibly identify such shipment as such unless otherwise specified by Broan.

100% inspection is required until Broan has confirmed that the corrective action has been found to be effective and all product is 100% within tolerance. This includes all shipments in transit to Broan at the time the defective part number was identified. The supplier shall make arrangements to ensure this containment occurs. Supplier's process control plans shall be updated to reflect the process changes until the non-conforming material is back under control. An updated PPAP may also be required (as per section 4.1).

7.1 Supplier Corrective Action Request (SCAR)

Broan uses the Supplier Corrective Action Request form (SCAR - 8D format) for problem management. A containment plan (3D) is required within 24 hours of notification, and a proposed corrective action plan is due within 10 business days of notification. If applicable, a Return Material Authorization (RMA) shall be provided within 48 hours of acceptance by the supplier. Supplier may be debited for the entire shipment if RMA is not received in a timely fashion.

Identification labels are required until permanent corrective action is implemented and verified. Additional containment may be required based on the nature and severity of the problem. The supplier is fully responsible for managing and paying for any 3rd party containment requirements.

7.2 Cost Recovery

The supplier will be held financially responsible for all costs incurred due to non-conforming product and/or late shipments to Broan.

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Broan will document all associated costs on a debit memo form, which will then be sent to the supplier. All costs incurred by Broan in order to resolve the quality issue related to the supply of non-conforming material will be charged to the supplier. Other situations that may cause a charge to the supplier include, but are not limited to:

- Late deliveries / delivery discrepancies
- Labor Costs: total cost to sort, rework, repair, administrative fees, etc.
- Penalty fees for assembly line stoppages due to delivery delays
- Production Overtime Premium: Total cost
- Scrap / non-conforming material cost: for parts and/or assemblies up to the point in the process where the defect was discovered.
- Premium transportation costs: inbound and outbound
- Outside services: third party sorting
- Customer costs: costs incurred by Broan customers
- Customer penalties related to late shipments or rejected material
- Penalty fees for administration

If the supplier believes that they should not be held responsible for any part of the costs assigned, they shall notify Broan in writing within five business days and request a review with applicable personnel. After five days or a review meeting, a debit memo will be issued for the amount shown on the final version of the worksheet.

8. SUPPLIER DEVELOPMENT

If severe and/or continuing quality issues arise with a supplier, Broan may require the supplier to work with Broan's Quality group to develop and implement an action plan to address and correct the issue(s). It is expected that the supplier will accept the assistance and provide resources to develop the action plan and improve their processes. The supplier is subject to elimination from Broan's approved supplier list if the supplier does not respond or provide required documented action plans. Problem situations may include, but not be limited to quality, delivery, commercial agreement, technology or other problems. Examples where an action plan may be requested:

- Product non-conformance including safety characteristics
- Sort or rework at Broan and/or customer site due to supplier's product quality
- Chronic quality issues
- Recurring part shortages

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9. DISASTER RECOVERY PLAN

Broan suppliers shall have a Disaster Recovery Plan in place to protect Broan's supply of product in the event that a supplier's facility cannot reasonably be expected to continue to

operate. Examples of such events include, but are not limited to utility interruptions, fire, flood, storm damage, data loss, chemical spills, earthquakes, tornados, and hurricanes. This plan shall be shared / reviewed with Broan upon request. Suppliers are required to routinely back up all electronic records (e.g. product design file, tooling design, manufacturing test measurements, etc.) at the supplier's site, as well as to a secure, redundant storage location outside of supplier's property.

10. TOOLING

Managing and payment for the maintenance and repair of Broan owned tooling, are the responsibility of the supplier. Broan is responsible for refurbishment and/or replacement of Broan owned tooling

If the supplier is responsible for tool design, then reproducible tooling prints shall be completed by the supplier at PPAP on all new program tools, tools undergoing an engineering change and current tools that are revised. Upon request from Broan, the supplier shall provide reproducible tooling prints and CAD models for existing tools.

The following requirements shall be included as part of the supplier's Disaster Recovery Plan:

- The appropriate property owner (i.e.: Broan, Venmar, etc.) shall be clearly identified on all tooling
- Electronic copies of the tool design (2D & 3D) shall held in redundant locations
- Insurance contract to cover tools

During the tool design phase, suppliers will be required to provide an expected life cycle and/or minimum number of parts that can be expected to be run over the life of the tool.

Within 10 days of request by Broan, the supplier shall furnish a complete inventory of all Broan owned tools in the supplier's possession. The inventory list shall include all active and inactive tools and shall contain the following information:

- Tool part number
- Cavitation
- Tool Description
- Tool build date
- Original tool cost
- Current tool revision number

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- Date parts last ordered
- Total quantity of parts produced from tool
- Remaining tool life
- Indicate previous part number of tool, if tool has been changed to produce a new part number

Broan will determine and communicate the disposition of all owned tooling.

11. LOGISTICS

11.1 Supplier Lot Traceability

Suppliers are required to maintain lot traceability of all materials back to the point of origin in the event that suspicious material would need to be isolated and a recall required. Each container shall be physically marked.

In addition, for parts and components manufactured from polymeric materials, each container of material shall be physically marked with the following information in addition to the items listed above.

- Material manufacturer's name or trade name and material designation
- Percent of thermoplastic regrind used
- Color concentrates or other additives

11.2 Transportation

All inbound shipments are shipped collect or 3rd party on carrier selected by Broan. The Purchase Order number shall be clearly printed on the Packing List and Bill of Lading.

Shipping modes vary based on size of shipment, origin, and delivery time requirements. Contact your Broan representative to request a copy of their Transportation Manual.

11.3 Packaging

Supplier shall appropriately package the products so as not to be damaged or destroyed in transit. In addition, supplier shall comply with any additional packaging requirements of the Broan location that has ordered the products being shipped, including any bar-coding requirements of the Broan location. All packages and shipments to a Broan facility are subject to standardized testing (applicable ISTA standard or equivalent) to evaluate integrity of packaging and product according to engineering requirements.

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Broan encourages supplier-initiated packaging improvements that have been validated by industry standard shipping tests (i.e., drop, vibration, crush, etc.)

Packaging, including alternative packaging when applicable, shall be submitted and approved by the Broan location prior to initial shipment (included in PPAP documentation). Expendable materials and packaging shall be legal and safe for standard, industry disposal and/or recycling. Returnable containers shall be considered as an option for a cost saving opportunity when possible.

12. PURCHASING

12.1 Purchase Orders

Supplier Code: A unique Supplier Code will be created for every supplier and will be the single identifier for each supplier. The Supplier Code will be used to track and report delivery performance, purchasing activity, invoice accuracy, and more.

Forecasts: At the Supplier's request, Broan may provide non-binding forecasts to the Supplier to help with production planning. These forecasts, and any other similar types of information provided by Broan, are non-binding to Broan in any manner and shall not be considered to be firm purchase orders. Broan shall not be obligated to purchase any of the projected products' volumes in the forecasts.

Purchase Orders: In addition to the item number and/or description of the products or services ordered, Broan's purchase order shall specify the Supplier name and address, unit price of each item, extended cost, and the required delivery date. The revision of the specifications / drawings, that was valid when the individual order was placed, will be the valid version when determining the quality requirements of the components.

Additional Orders: Broan may place orders which exceed the number of products or quantities previously specified in the forecasts furnished to supplier, and supplier agrees to exercise its best efforts to fill the excess portion of the order. Within twenty-four hours after receipt of such an order, the supplier shall provide written confirmation of the additional quantity supplier will be able to deliver, and the time frame in which the additional quantity will be delivered.

12.2 Order Acknowledgement

Supplier is required to respond to each purchase order with a written acknowledgement and order acceptance within twenty-four (24) hours of receipt of the purchase order. Supplier shall provide acceptance of Broan's purchase orders via return email to the buyer. In addition to the unit price and confirmed delivery date, Supplier's acceptance of

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the order includes the acceptance of the terms and conditions included in the purchase order. If a formal Supplier Agreement is in place, the Terms and Conditions of said Agreement shall take precedence should a conflict occur.

12.3 Spare Part Order

Suppliers of Broan finished goods or of production parts used in Broan finished products, shall provide service parts for ten years after the last shipment of production parts to Broan.

12.4 Order Shipment

Shipment Notice and Terms: Shipping method will be defined in the Supply Agreement or Purchase Order. Broan may charge supplier for shipping, storage and other costs associated with any shipment of products which are not prepared, packaged or shipped properly and according to this document, or do not otherwise meet the requirements for products set forth herein. Supplier will be notified of those locations that require Advanced Shipping Notices (ASN's).

Failure to Meet Delivery Date: Supplier shall immediately notify Broan if they are unable to meet the required delivery date as noted on the purchase order and shall provide a confirmed delivery date that Broan can expect to receive product. If the supplier is unable to meet the required delivery date, Broan reserves the right to cancel all or part of the purchase order for that product.

Transportation/Freight: Broan shall designate the method of transportation, the route and the carrier for those order for which Broan is responsible for payment of delivery.

Customs Documentation: It will be the supplier's responsibility to ensure the appropriate paperwork (i.e. Commercial Invoice, Packing List and 7-point inspection checklist) is presented to the freight forwarder.

Commercial invoice shall include the following:

- Purchase Order Number
- Container Number
- Seal Number
- Broan Part Number
- Detailed Part Description
- Country of Origin
- Item Cost & Total Value

Packing list shall include the following:

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- Purchase Order Number
- Container Number
- Seal Number
- Broan Part Number
- Quantity
- Net & Gross Weights

Importer Security Filing (for ocean shipments to U.S. destinations only): A completed ISF Transmittal form shall be provided to UPS at ordisfteam@ups.com no later than 72 hours prior to container loading at origin to ensure timely submission to U.S. Customs.

Supplier shall fully reimburse Broan for any additional fines or fees as a result of any missing or incomplete paperwork.

12.5 Country of Origin Compliance

On an annual basis, or upon request from the Broan Trade Compliance Team, supplier shall provide country of origin information for all parts supplied. If any of the parts also qualify for a free trade program, such as NAFTA / USMCA, a certificate of origin shall be provided.

Should country of origin change at any time on a part supplied, notification shall be sent to the Broan buyer.

13. CONTINUOUS IMPROVEMENT

Continuous improvement and lean principles are fundamental to our business and to the long-term success of our suppliers. We expect our suppliers to manage their quality systems to the same standards that guide our quality efforts, and to demonstrate continuous improvement in areas that benefit the customer in terms of quality, price, delivery, service and technology. To aid in fulfillment of this requirement the supplier's organization shall monitor, prioritize, and act upon key performance objectives and targets as defined in the Supplier Scorecard. Actions taken to regain previously sustained levels of performance are corrective actions, not continuous improvement. Broan may visit any supplier site to assess its continuous improvement programs and lean manufacturing practices and make recommendations for improvement.

Some common examples of Continuous Improvement programs are:

- Cost reduction projects
- Waste reduction projects
- Variation reduction projects
- Factory reorganization projects

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- Inventory reduction projects
- Yield improvement projects
- Manufacturing and non-manufacturing process Improvement

14. SUPPLIER REVIEW AND PERFORMANCE EVALUATIONS

14.1. Supplier Readiness Review (SRR)

With a minimum of ten (10) business days advance notice to supplier, representatives of Broan or its customer are entitled to visit the supplier's processing and assembly facilities, and/or those of the Supplier's sub-suppliers, to conduct an on-site audit

assessment on the basis of ISO9001 standards or for product audits. The Supplier shall provide the necessary resources to assist in the performance of this task.

The Supplier Readiness Review is an assessment tool used to evaluate potential risks to the quality and/or supply of products that will require corrective action. A completed and approved Supplier Readiness Review is required in order for any supplier to start doing business with Broan; however, Broan reserves the right to conduct a Supplier Readiness Review at any time after a supplier has been on boarded.

Supplier Readiness Reviews are used in many different circumstances in order to evaluate risk:

- New supplier review
- New product introduction
- Major process or technology change
- Significant increase or decrease of business with a supplier
- Supplier performance issues and development

They are also used to evaluate many different areas of a supplier's operation including, but not limited to:

- Engineering
- Operations
- Quality Assurance
- Project Management
- Capacity
- Change Control
- Purchasing
- Continuous Improvement
- Sub-tier supplier management
- Manufacturing processes and procedures

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- Disaster Planning
- Logistics
- Certifications

Medium or High-Risk scores require the supplier to provide a corrective action plan within 10-day days, or as required by Broan's Quality representative. If the supplier does not respond with a plan, Broan may choose to cease doing business with the supplier and will not be responsible for any open or future orders.

14.2. Supplier Scorecard

Suppliers are subject to periodical evaluation of service, on Delivery, Cost, and Quality metrics.

Broan's Purchasing, Sourcing and Quality teams will review supplier performance on a quarterly basis and results will be distributed via the Supplier Scorecard.

The scorecard is weighted using the following components:

- **Delivery (35 points):** The On-time Delivery metric is defined as the % of orders that meet the order due date or are 5 days early. Buyer/Planners to assess late delivery orders on whether the delay was due to shipment or logistics delay. If shipped on time, then considered on time (if FOB terms). Weighted Average to 35 points - $OTD = (((On-time\ Shipments/Total\ Shipments)*.35)*100)$
- **Quality (35 points):** The Quality metric consists of three components: PPM (part per million), SCAR Count, and Corrective Action Responsiveness.
 - Product Quality is measured in **PPM**: PPM is the defective units per 1 million units (defined in BPGLOBAL19) and is determined by taking the total quantity of defective items that need to be contained / inspected / returned, in comparison to the total quantity delivered. Score is based on 15 points for 1,000 PPM and decreases down to 0 points for 10,001 PPM.

For example, if you have 5 defective pieces out of a total of 1,000 pieces delivered, the PPM calculation is $5/1000 = .005$ or 0.5% defective. $.005 \times 1,000,000 = 5,000$ PPM (8.3 points).
 - **Supplier Corrective Action Request (SCAR):** is the number of open corrective action plans for a supplier to fix an existing issue. Score is based on 10 points for 0 SCARS and decreases down -2.5 points for each issued SCAR in a quarterly period.

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- **Corrective Action Responsiveness:** is the numbers of days to acknowledge and return a corrective action plan for issued SCARs. Score is based on 10 points for 0-Days late and decreases down to 0 points for 15+ days late.
- **Cost (30 points):** The Cost metric consists of two components: Purchase Price Variance (PPV), and Payment Terms.
 - **Purchase Price Variance (PPV):** is the total variance between the invoiced spend and standard spend - average of monthly PPV% per quarter. Score is based on 25 points for -10% to 0% PPV and decreasing down to 0 points for PPV values greater than 20%.
 - **Payment Terms:** is the days in which the buyer (Broan entities) are entitled to pay the supplier invoice. Score is based on 5 points for terms greater than 60-days and decreases do to 0 points for terms less than 30-days.

Persistent deviation of the required targets may lead to a Supplier Corrective Action Plan (SCAR) being issued. Broan reserves the right to disqualify a supplier from Broan's approved supplier list and cancel any open purchase orders with said supplier if there is no response from the supplier, or improvement in supplier's measurements.

15. Document Revision

Revisions or additions to the Global Supplier Manual will be managed, maintained, reviewed and approved by Broan. The Supplier shall have the most current version of the Supplier Manual available and integrated into their system. The latest version of the Broan Global Supplier Manual can be found at <http://www.broan-nutone.com/SupplierNet/>

16. Precedence

If there are differences between the requirements of this manual and any other documents, the order of precedence of the documents is as follows:

1. The Inventory Management / Supply Agreement
2. The Purchase Order including terms and conditions
3. This Global Supplier Manual

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APPENDIX 1

Affiliates of Broan

Broan, LLC (Hartford)

Broan Building Products - Mexico S. de R.L. de C.V. (BBPM)

Innergy Tech

Venmar Ventilation ULC.

Pacific Zephyr Range Hood, Inc.

Zephyr Corporation

Guangdong Broan IAQ Systems Co. LTD (GBIS)

REVISION

REV	DESCRIPTION
02	Overall rewrite of the document, integrated the NPD process, updated the PPAP process and incorporated the new PPAP template / process, updated how to become a supplier, aligned for global use, and documented the new Supplier Website.
03	Changed Section 1.3 Terms and Conditions definitions and elsewhere throughout document to show: PPAP disposition term of "Interim Approval" deviation to comply with Agile as simply Deviated. Changed "Supplier Review" to Supplier Readiness Review. Changed Section 5, Important Approval Attributes, #2 from 3-piece sample to quantity identified on PPAP request. Various other typos as found in review of document. Added REVISION section at the end of the document. Updated to align with global policy template. Removed the PPAP mailboxes for each plant to require email PPAP documentation directly to the responsible QE and Buyer. Added Supplier Scorecard.