

Supply Chain Purchasing Supplier Production Process Qualification

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1.0 INTRODUCTION

Briggs & Stratton Corporation uses a Production Part Approval Process (PPAP) to document and approve the first production run results of dimensional, chemical and physical properties, and other product qualification testing as specified for production parts. Production parts or products for PPAP submissions are to be produced with production materials, tooling, equipment and processes, gauges, and operators. Any non-conformance to the specifications requested by Briggs & Stratton must be corrected prior to PPAP submission unless prior approval to submit (part deviation) has been received from Briggs & Stratton Purchasing. Temporary approval for prototype tooling may be required until production tooling is available.

2.0 WHEN A PPAP SUBMISSION IS REQUIRED

A PPAP submission must be completed:

- PRIOR TO the first production shipment of a new product.
- PRIOR TO the first shipment following an engineering change. All engineering revisions, regardless of whether or not actual dimensional changes occur, must be responded to for approval to that revision level.
- PRIOR TO the first shipment following a process or material change.
- PRIOR TO a change in secondary suppliers or a secondary supplier design change.
- PRIOR TO the first shipment from a new die or mold.
- PRIOR TO the first shipment from a different manufacturing location or a move within a facility, utilizing new or relocated tooling and equipment.
- PRIOR TO the first shipment from a correction of a discrepancy.
- PRIOR TO the first shipment from a process flow change.
- PRIOR TO the first shipment from an additional manufacturing line, machine or tool.

In certain instances, Briggs & Stratton may not generate a PPAP packet, such as a supplier process change, new secondary supplier, or new movement of tooling to another location. In no way does this remove the responsibility of the supplier to submit a PPAP. The supplier **MUST** contact the buyer informing them that one of the above situations is going to occur. This notice must be made far in advance of the actual change. A PPAP packet, if needed, will be created, to identify what additional documentation or testing is required.

2.1 HOW IS THE PPAP SUBMISSION REQUESTED

Briggs & Stratton Purchasing will initiate PPAP in SAP and assign SQE as a coordinator. SQE determines PPAP level and sends the PPAP package to the supplier's representative.

This packet will contain:

- A PPAP Acknowledgement Form - This form is to be filled out completely and returned to the Briggs & Stratton Representative within the time noted on the letter. It should NOT be returned with the PPAP submission, unless it is a level 1 PPAP.
- A Sample Parts Label
- The Briggs & Stratton prints and specifications, including K, Y drawings.
- The Briggs & Stratton Part Submission Warrant (PSW) form.
- Other items as applicable:
- Blank forms as applicable to the requested PPAP requirements.
- A copy of the Engineering Change Notice (ECN) to provide notification of engineering change.
- The supplier should use their own PPAP forms, which should follow the current AIAG standards.

2.2 WHAT IS REQUIRED FOR THE PPAP SUBMISSION

The supplier will receive a PPAP Acknowledgement Letter and checklist, determining the required activities to be completed and those to be submitted. The supplier is required to complete the Acknowledgement letter and return within 5 business days.

If specified, some documents may need to be submitted to Briggs & Stratton for review PRIOR to the PPAP run. The supplier must review and update all necessary documents to ensure the proper part or product revision level is maintained.

Upon completion of the PPAP, all required documents, including the signed Part Submission Warrant (PSW) are to be submitted to Briggs & Stratton by the PPAP due date.

There are five different submission levels that could be requested for Briggs & Stratton PPAP. Please see Figure 1. The Supplier Quality group may add or subtract requirements within the submission levels based on applicability.

- Level 1 – PSW only. Appearance Approval Report (AAR) and product samples may be requested based on part or product.
- Level 2 – PSW with product samples and limited supporting data.
- Level 3 – PSW with product samples and complete supporting data.
- Level 4 – PSW with requirements requested by Briggs & Stratton.
- Level 5 – PSW with product samples and supporting documents reviewed at the supplier location. PSW is to be signed and a copy taken back to Briggs & Stratton for record purposes.

2.3 PPAP SUBMISSION DISPOSITION

PPAP Acceptance: The PSW will be signed by Briggs & Stratton and returned to the supplier to signify all aspects of the PPAP are approved and production shipments may commence. The signed PSW must be retained for the life of the part.

PPAP Conditional Acceptance: The PSW will be signed by Briggs & Stratton and returned to a supplier with a deviation. Parts or product may be shipped with a deviation for a specified quantity or period of time until corrections are made and resubmitted, or a drawing change is completed which will require another PPAP.

PPAP Rejection: Production parts or products are not to be shipped and suppliers must correct the discrepancies and resubmit samples immediately.

A production shipment is not to be made until Briggs & Stratton dispositions, signs, and returns the PSW to the supplier, unless a deviation is issued prior to disposition.

If resubmitting is required due to conditional approval or rejection, the supplier should legibly print "CORRECTIONS" in the Explanation/Comments of the PSW and select the correction of the discrepancy box under reason for submission. The PPAP must be correctly filled out and signed with corrected measurements on the data sheet.

2.4 SUB-SUPPLIER AND SUB-COMPONENT PPAPs

Definitions:

- Supplier: the Company with whom Briggs & Stratton has issued a purchase order.
- Sub-supplier: the Company with whom a supplier has issued a purchase order.
- Major Sub-components: Those components, for which Briggs & Stratton has a drawing, that are purchased by a supplier to complete a Briggs & Stratton assembly; and CTQ (critical to quality) components for CM (contract manufacturing) products.
- Minor Sub-components: Those components, which are controlled by the Supplier or Subsupplier that Briggs & Stratton does not have a drawing for.

Briggs & Stratton will issue PPAP packets for ALL parts with a Briggs & Stratton drawing, regardless of design ownership; this includes components (with Briggs & Stratton drawings) purchased by the supplier to complete a Briggs & Stratton assembly. These parts will hereafter be referred to as major subcomponents and the suppliers of these parts will be referred to as sub-suppliers.

PPAP packets for the major sub-components will be issued to the supplier. It is the supplier's responsibility to have them completed, either by the sub-suppliers or by themselves. Failure to complete them will be held against the Supplier's Quality Rating. PPAP results will be sent to the supplier, not the sub-supplier. The supplier is responsible for forwarding a copy of the signed PSW to the sub-supplier.

Briggs & Stratton reserves the right to send PPAP packets directly to the sub-supplier, especially in those cases where the tooling is owned by Briggs & Stratton. Copies of the signed PSWs will be sent to the sub-supplier and the supplier. The effective date of the changes remains the responsibility of the supplier, not the sub-supplier.

Briggs & Stratton may require proof of approval (i.e. PSW) of minor sub-components if the component is considered to be critical to the overall performance of the assembly. The Major Subsupplier PPAP must be approved by Briggs & Stratton before the Supplier PPAP will be accepted.

3.0 BRIGGS & STRATTON PPAP SUBMISSION REQUIREMENTS

The following requirements outline what may be requested for a supplier to submit in a PPAP to Briggs & Stratton. The PPAP level and submission requirements are assigned by Briggs & Stratton and noted in the PPAP Acknowledgement form.

For further explanation or description, please reference the latest edition of the Automotive Industry Action Group (AIAG) Production Part Approval Process (PPAP) reference manual for clarification or contact Briggs & Stratton.

Note: All documentation must include the Briggs & Stratton Part number and Revision level.

3.1 SIGNIFICANT PRODUCTION RUN

A significant production run is required to make samples for submission of PPAP. The significant production run will be determined by the Supplier Quality group with input from purchasing and can be expressed in hours of manufacturing or in a quantity of parts or product. The significant production run requirement will be documented in the sample product requirement on the PPAP Acknowledgement form. The significant production run is required to ensure parts used for PPAP submissions are from a process that will be representative of “normal” production conditions.

3.2 SAMPLE PRODUCT

Sample products may be requested as part of the PPAP submission to validate submitted dimensional data. The Supplier Quality group will make the determination as to how many parts or products are needed for submission. In the case of multi-cavity tooling, an analysis must be performed on the specified number of parts from each cavity. The data can be presented as either tabulation or on separate PPAP data sheets for each cavity. The data and sample parts submitted to Briggs & Stratton must be clearly marked to ensure it is traceable to an individual cavity and inspected parts.

3.3 DIMENSIONAL RESULTS

Dimensional results require the supplier to number every characteristic, note, and callout on the design record (drawing, print or equivalent) and provide evidence of conformance to the dimension, note, or characteristic on the PPAP data sheet. The numbered drawing and the PPAP data sheet must be included in the PPAP submission.

3.4 DESIGN RECORD

The design record is the Briggs & Stratton part or product drawing that is numbered by the supplier and used for correlating the print to the dimensional results in section 3.3 above.

3.5 MATERIAL REPORTING

The supplier must provide evidence that all parts or products supplied to Briggs & Stratton complies with the 544K Environmental Requirements for Materials, Parts, and Products specification. Compliance reporting is documented on the PSW under Material Reporting. Corrective action plans may be requested if the parts or products do not comply with 544K.

3.6 ENGINEERING CHANGE DOCUMENTS

For initial releases of new part numbers or for engineering changes, Briggs & Stratton may send out the ECN documentation for acknowledgement of the change. These documents must be sent back with the PPAP submission to ensure the supplier is aware of the changes.

3.7 DESIGN FAILURE MODES & EFFECTS ANALYSIS (dFMEA)

If Briggs & Stratton does not have design control of a part or product, the Design FMEA may be requested in the PPAP submission to ensure critical features of the part or product were addressed. For additional information and examples, please reference the latest edition of the AIAG Potential Failure Mode and Effects Analysis (FMEA) Reference Manual. The dFMEA is a living document and should be reviewed whenever there is a design change or the occurrence of a failure.

3.8 PROCESS FLOW DIAGRAM

The preferred format of a process flow description is a schematic of the part or product's routing. The flow diagram starts with the raw materials entering the plant and ends with the finished product leaving the plant. The flow diagram should also include the inspection stations in the routing. For further reference please review the latest edition of the AIAG Advanced Product Quality Planning (APQP) reference manual.

3.9 PROCESS FAILURE MODES & EFFECTS ANALYSIS (pFMEA)

The Process Failure Mode and Effects Analysis (pFMEA) is a tool used to identify potential failure modes within the process being performed. The pFMEA is performed by analyzing the process operation by operation as described on the process flow diagram. Brainstorming identifies the ways in which the process could fail, e.g., not performed as intended. A team of knowledgeable individuals should be assembled with expertise in design, manufacturing, assembly, service, and quality, but not limited to these areas. For additional information and examples, please reference the latest edition of the AIAG Potential Failure Mode and Effects Analysis (FMEA) Reference Manual.

After completion of the process analysis, those attributes with a high Risk Priority Number (RPN) and those that have a severity rating of 9 or 10 are to be analyzed to determine if corrective actions (process or design related) need to be completed. Each corrective action must have a person responsible and a due date. The pFMEA is a living document and should be updated whenever there is an engineering or process change, other failures are found, or corrective actions are implemented.

3.10 CONTROL PLANS

Control plans are developed from each process step of the process flow diagram. Control plans must consider both product and process requirements and identify the inspections and or monitoring activities. For further reference please review the latest edition of the AIAG Advanced Product Quality Planning (APQP) reference manual.

All critical characteristics [Critical (C), Major (M), or (MM)] must be identified on the control plan with the specified symbol on the design record and are subjected to ongoing SPC data collection. Once approved by Briggs & Stratton, control plans must be kept current as living documents by the supplier to reflect engineering and process changes.

3.11 MEASUREMENT SYSTEMS ANALYSIS STUDIES (GAGE R&R)

A measurement system analysis study or gauge R&R (GR&R) is conducted to determine the percentage of the tolerance that is consumed (PTC) by the measurement system variation. Suppliers shall (upon request) provide results of GR&R studies for gauges used in the course of producing products for Briggs & Stratton. Typically, GR&R studies will be requested for variable gauges used to measure characteristics classified as Critical (C), Major (M), or (MM). However, there may be select circumstances where a GR&R study is requested for an attribute gauge or a gauge that is not used to measure characteristics classified as (C), (M), or (MM).

Attribute Gage R&R's must utilize at least 1 part that is marginally out of spec.

GR&R studies for Briggs & Stratton PPAP must follow the Average and Range method as described in the AIAG Measurement Systems Analysis (MSA) reference manual. The study will use the part tolerance (not the total study variation or process variation) to determine if the gauge is acceptable or not.

The tolerance range method is determined by substituting the tolerance range of the part divided by 6 (TR/6) in place of total variation (TV) in the calculation to determine the percentage of R&R, percentage of Appraiser Variation (AV), and percentage of Equipment Variation (EV).

The criteria for acceptability:

- Under 10% PTC – Acceptable
- 10% to 30% PTC - In most cases this is acceptable based on the feature measured and application used. For acceptance, contact the Briggs & Stratton Supplier Quality group
- Over 30% PTC – Unacceptable - but may be approved by Briggs & Stratton in exceptional situations.

An alternative method for performing Gage R&R's is using the Analysis of Variance (ANOVA) method. The recommended method is to have 2 operators, measure 10 parts, 2 times. Based on the part and gage, other variations may be acceptable.

The criteria for acceptability:

- Under 0.1 P/T ratio – Acceptable to 0.3 P/T ratio - In most cases this is acceptable based on the feature measured and application used. For acceptance, contact the Briggs & Stratton Supplier Quality group.
- Over 0.3 P/T ratio – Unacceptable - but may be approved by Briggs & Stratton in exceptional situations.
- P/T = Precision of measurement system to the total tolerance of the process. (Ptol)

3.12 MATERIAL / PERFORMANCE TEST RESULTS

The PPAP submission may require Material / Performance Test Results. Material / Performance Test requirements are specified on the Briggs & Stratton drawings, engineering “K specifications” and/or other national or international specifications. The tests may require chemical, metallurgical, mechanical, electrical, hydraulic, pneumatic and/or performance testing. If the supplier is unable to perform the required testing, another source must be provided to fulfill this requirement. The laboratory performing the testing must be accredited.

The actual certification document must contain both quantitative and qualitative data. Blanket statements of compliance will not be accepted.

3.13 INITIAL PROCESS STUDIES

Initial process performance and capability studies are to be conducted on the first significant production run of PPAP, with a minimum of 50 samples taken from a process that is in statistical control (unless otherwise specified by the Briggs & Stratton Supplier Quality group). Applicable control charting methods should be used to assess statistical control. Prior to conducting the performance/capability study, the gauging used must pass a measurement system analysis study (Gage R&R).

Process Indices used to determine acceptability:

- Process performance is determined by using Pp along with Ppk.
- Process capability is determined by using Cp along with Cpk

Note: If there is a significant difference between the Pp vs. Cp and/or Ppk vs. Cpk, the process is not in statistical control. The process studied must be in a state of statistical control to submit to Briggs & Stratton for PPAP. Refer to the latest edition of the AIAG Statistical Process Control (SPC) reference manual for details on conducting performance/capability studies and calculating the above indices.

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Acceptance criteria for Initial Process Studies assuming the state of statistical control as noted above:

- 1.67 Ppk for characteristics classified as Critical (C) or (MM).
- 1.33 Ppk for characteristics classified as Major (M)
- 1.33 Ppk for unclassified characteristics (as requested).
- Both Ppk (histogram) and Cpk (control chart) data should be submitted for Briggs & Stratton to observe the process and state of statistical control.
- In addition, Briggs & Stratton may request long-term capability studies. The purpose for the long-term study is to determine the effects that all the factors likely to contribute to process variation have on the process. These studies may be requested before full PPAP approval can be given.

On-going Production (after PPAP approval):

- Characteristics classified as Critical (C) or (MM) may require statistical data with future shipments. This data must show that the process is maintaining a Cpk of 1.67 or greater.
- Characteristics classified as Major (M) are subject to requests for statistical data showing that the process is maintaining a Cpk of 1.33 or greater.

**3.14 APPEARANCE APPROVAL
REPORT (AAR)**

If the part or product has specific color requirements (powder / wet paints or plastics), the supplier must fill out the Appearance Approval Report (AAR). Approval of the AAR must be obtained prior to submitting PPAP to the required plant for approval. See figure 3 for an example and instructions.

3.15 MASTER SAMPLE

The supplier, as a best practice, should retain one part or product from each cavity, mold or pattern from the PPAP production run and maintain it as a master sample until a new PPAP is required for the same part or product.

3.16 PART SUBMISSION WARRANT (PSW)

Once all PPAP requirements are completed, a Briggs & Stratton part submission warrant (PSW) must be filled out completely and submitted with each PPAP request. See figure 2. The supplier must use the Briggs & Stratton PSW form.

3.17 MSDS SHEET

A Material Safety Data Sheet (MSDS) may be requested for PPAP submission. The MSDS needs to be approved prior to shipment for any rust preventive or wet chemical used on products that are shipped to Briggs & Stratton. Other requests for MSDS may be required to document all chemicals used in producing parts or products.

3.18 PACKAGING, HANDLING & LABELING

PPAP may specify packaging, handling, and labeling requirements. In the majority of cases where this is not addressed on the drawing, the supplier is required to provide packaging that will protect the product from damage in transit. Also, the packaging must facilitate the use of the product at Briggs & Stratton.

The packaging must be economical and not cause disposal problems. If there is any question about the suitability of the packaging, refer to: Supplier Manual Section 8, PACKAGING REQUIREMENTS, or contact your Briggs & Stratton Purchasing Representative for more information.

Suppliers are to label all containers by following the instructions in Supplier Manual Section 9, LABELING. The information must be legible and the packing slips are to contain the same information as the label.

3.19 ECO CHANGES ONLY

When requested to submit ECO changes only, the supplier must verify only the specific requirements that changed because of the Engineering Change Order. The design record (section 3.4) and dimensional results (section 3.3) PPAP requirements must also be followed to document the ECO changes only requirement.

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3.20 PART WEIGHT

The supplier must weigh 10 randomly selected parts and record the weight in kilograms to the fourth decimal place as documented on the PSW (see figure 2).

Table 1: PPAP REQUIREMENTS MATRIX

Manual Ref	Requirement	Level 1	Level 2	Level 3	Level 4	Level 5
6.2.4	Design Record (Ballooned Print)		S	S		
6.2.6	Engineering Change Documents		S	S		
6.2.7	Design FMEA			S		
6.2.8	Process Flow Diagram			S		
6.2.9	Process FMEA			S		
6.2.10	Control Plan			S		
6.2.11	Measurement System Analysis Studies (Gage R&R)			S		
6.2.3	Dimensional Results		S	S		
6.2.12	Material / Performance Test Results		S	S		
6.2.13	Initial Process Studies			S		
6.2.14	Appearance Approval Report - AAR	S	S	S		
6.2.2	Sample Product	S	S	S		
6.2.15	Master Sample			S		
6.2.16	PSW	S	S	S	S	S
6.2.17	MSDS Sheet	S	S	S	S	
6.2.18	Packaging Handling & Labeling			S		
	Tooling Drawings			R		
6.2.19	ECO Changes only		S			
	Additional Requirements (if requested)					
6.2.5	Material complies to B&S 544K Spec.	S	S	S	S	
	Sub-supplier PSW's (if requested)		S	S		S
	ISO9000/TS16949 (if requested)			S		
	Operator Instructions			R		
	Gage Instructions			R		

S = Submit to B&S R = Requirement to be completed but not submitted unless requested

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1. Figure 1: PART SUBMISSION WARRANT (PSW)

Briggs & Stratton Corporation Part Submission Warrant				Print Form
Part Name _____		B&S Part Number 1		
PPAP # _____	Description _____			
Engineering Change Level 2	Date _____	Purchase Order No. _____	Weight(kg) 3	
ORGANIZATION MANUFACTURING INFORMATION		CUSTOMER SUBMITTAL INFORMATION		
Supplier # _____	Supplier Name _____		Briggs & Stratton Corp. _____	
Street Address _____		Customer Name _____	Location _____	
City _____	Region _____	Postal code _____	Country _____	
MATERIAL REPORTING 4		Buyer _____		
Does product comply with B&S SVK spec <input type="checkbox"/> Yes <input type="checkbox"/> No		Buyer Code _____		
REASON FOR SUBMISSION 5		Application _____		
<input type="checkbox"/> Initial Submission	<input type="checkbox"/> Supplier Source Change			
<input type="checkbox"/> Engineering Change(s)	<input type="checkbox"/> Change in Process			
<input type="checkbox"/> Tooling: Transfer, Replacement, Refurbishment, Additional	<input type="checkbox"/> Parts Produced at Additional Location			
<input type="checkbox"/> Correction of Discrepancy	<input type="checkbox"/> Other - please specify below _____			
<input type="checkbox"/> Subcomponent Submission				
REQUESTED SUBMISSION LEVEL 6				
<input type="checkbox"/> Level 1 - Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to Briggs & Stratton				
<input type="checkbox"/> Level 2 - Warrant with product samples and limited supporting data submitted to Briggs & Stratton				
<input type="checkbox"/> Level 3 - Warrant with product samples and complete supporting data submitted to Briggs & Stratton				
<input type="checkbox"/> Level 4 - Warrant with and other requirements as defined by Briggs & Stratton				
<input type="checkbox"/> Level 5 - Warrant with product samples and complete supporting data reviewed at organization's manufacturing location				
SUBMISSION RESULTS 7				
The results <input type="checkbox"/> dimensional measurements <input type="checkbox"/> material and functional test <input type="checkbox"/> appearance criteria <input type="checkbox"/> statistical process package				
These results meet all submission record requirements: <input type="checkbox"/> Yes <input type="checkbox"/> No (If 'No' - Explanation Required Below)				
DECLARATION 8				
I affirm that the samples represented by this warrant are representative of our parts which were made by a process that meets all B&S drawings and specifications under normal production conditions. I have noted any deviations from this declaration below.				
Mold / Cavity / Production Process _____				
EXPLANATION / COMMENTS 9				
Is each B&S tool, gage, or equipment tagged and numbered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a 10				
Supplier Authorized Signature _____		Date _____		
Phone No. _____	Fax No. _____	email _____		
Title _____				
FOR B&S USE ONLY (IF APPLICABLE)				REV - 04/16/09
B&S Signature _____		Date _____		Comments/Reasons <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<input type="checkbox"/> Accept	<input type="checkbox"/> Conditional Accept	<input type="checkbox"/> Reject	Deviation # _____	

Please see the next page for instruction / definition of the find numbers:

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PART SUBMISSION WARRANT (PSW)

INSTRUCTIONS:

1. Briggs & Stratton Part Number: The Briggs & Stratton Part Number that is indicated in the PPAP Packet.
2. Drawing Revision The revision of the Briggs & Stratton Part Drawing that is indicated in the PPAP Packet.
3. Weight: Please refer to 6.2.20 for requirements needed to complete this section.
4. Material Reporting: Please refer to 6.2.5 for the requirements needed to complete this section.
5. Reason for Submission: Select the appropriate reason for submission as documented on the PPAP acknowledgement form.
6. Requested Submission Level: Select the appropriate submission level as documented on the PPAP acknowledgement form.
7. Submission Results: Select the boxes for the requirements that Briggs & Stratton requested for PPAP submission. Select the appropriate box as a response “yes” or “no” for the results of the PPAP meeting all specified requirements. If “no” then comments are needed in the explanation/comments section.
8. Declaration: Upon signature of the PSW, the supplier is confirming that the parts produced for the PPAP were made under normal production conditions. Any deviations from normal production conditions should be noted in the explanation/comments section.
9. Explanation/Comments: To be used to document if the PPAP package does not meet any of the submission results or do not meet the declaration statement. Additional documents and information must be submitted if needed.
10. B&S tool, gage, or equipment tagged: Select the appropriate box as a response to the tagging and identification of any Briggs & Stratton owned tool, gage, or equipment to prove ownership. Contact your Briggs & Stratton Purchasing representative for further instruction.

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Figure 2: APPEARANCE APPROVAL REPORT (AAR)

Briggs & Stratton Appearance Approval Report										
	Part Number	Revision Level	Part Name			Date	PPAP Number			
	1	2								
	Part Supplier	Supplier Number		Reason For Submission						
COLOR SOURCE INFORMATION										
Paint/Powder/Molder Supplier: 3										
Colorant Supplier: 5										
Base Resin Used:										
SUPPLIER COLOR EVALUATION METHOD										
Instrumentation: 4										
Light Source: 6										
COLOR MATCHING SOURCE (Select One)										
Lot Chip/Panel to B&S Master: 7										
Production Part to B&S Master:										
BRIGGS & STRATTON COLOR EVALUATION REQUIREMENTS										
Instrumentation: Color i5 Spectrophotometer (Sphere)										
Light Source: F02-10 (CWF) and D65-10 (Daylight)										
Observer: 10° Viewer: Large Area										
Mode: Reflective										
ACCEPTANCE CRITERIA										
Note: Visual Color Assessment takes precedent over computer reading										
Paint Pass/Fail Limit DEcmc 1.0										
Plastic Pass/Fail Limit DEcmc .75										
8	9	10	11							
P NUMBER	COLOR NAME	DL*	COLOR EVALUATION				Gloss	VISUAL COLOR ASSESSMENT		OVERALL DISPOSITION Accept / Reject / CA
			Da*	Db*	DE*	DEcmc		Supplier	Briggs & Stratton	
COMMENTS:										
Supplier Signature			Phone	Date	Briggs & Stratton Signature			Phone	Date	

**APPEARANCE APPROVAL REPORT (AAR)
INSTRUCTIONS**

1. Briggs & Stratton Part Number: The Briggs & Stratton Part Number that is indicated in the PPAP Packet.
2. Revision Level: The revision of the Briggs & Stratton Part Drawing that is indicated in the PPAP Packet.
3. Color Source Information:
 - a. Paint/Powder/Molder Supplier – the supplier that provides the color source.
 - b. Colorant Supplier – the colorant supplier for plastics. (Plastics only)
 - c. Base Resin Used – the actual resin used for the plastic color match. (Plastics Only)
4. Supplier Color Evaluation Method:
 - a. Instrumentation – the instrument type performing the color match.
 - b. Light Source – light source(s) used to perform the color match.
5. Briggs & Stratton Color Evaluation Requirements: The color evaluation criteria that Briggs & Stratton uses for computer readings.
6. Acceptance Criteria: The pass / fail requirements that Briggs & Stratton uses for computer readings. Note that Briggs & Stratton visual assessment is the primary color approval method and computer readings are used to back up visual assessment.
7. Color Matching Source: Must select only one.
 - a. Lot Chip / Panel to B&S Master – used if the visual or computer assessment at the supplier is performed with the B&S Master and a colorant lot chip or a painted panel.
 - b. Production Part to B&S Master – used if the visual or computer assessment at the supplier is performed with the B&S Master and compared to the production part.

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8. P-Number and Color Name:
 - a. P-Number – called out on the drawing. P-XXX is for plastics, P2-XXX is for powder paints, and P3-XXX is for wet paints.
 - b. Color Name – name of the Briggs & Stratton color associated with the P-number.
9. Color Evaluation: The evaluation using the L*a*b* criteria from the supplier's color evaluation source. Gloss is only to be used for wet or powder paint evaluations.
10. Visual Color Assessment: The supplier should fill out their visual assessment of the color evaluation and leave the Briggs & Stratton assessment area blank. Once evaluation is completed, the supplier must sign and send it to Briggs & Stratton for color approval. Contact the Supplier Quality group for guidance.
11. Overall Assessment: To be used by Briggs & Stratton to provide acceptance of AAR prior to PPAP submission by the supplier. Briggs & Stratton will sign and send back to the supplier to be used in the PPAP package.