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**SNAP-ON QUALITY STANDARD**

**Snap-on Supplier Quality Manual Agreement Letter**

Snap-on relies on exceptional customer satisfaction to exceed the demands of our customers who use our products in a heavy duty repetitive environment. Snap-on is committed to providing high performance products that exceed our customer's expectations. It is this commitment that differentiates Snap-on from other brands and tools in the general consumer market. Suppliers to Snap-on must be committed to providing exceptional safety, quality, delivery, value, performance, and support to satisfy Snap-on customer expectations.

As a supplier to Snap-on, I agree to operate according to the policies and procedures in the Snap-on Supplier Quality Manual in order to help Snap-on meet its customer satisfaction expectations.

Name \_\_\_\_\_  
Title \_\_\_\_\_  
Date \_\_\_\_\_  
Company \_\_\_\_\_



## SNAP-ON QUALITY STANDARD

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## **1. INTRODUCTION**

The Snap-on Supplier Quality Manual (SSQM) represents Snap-on practices and philosophies. All suppliers of production raw materials, components, assemblies, finished products and service parts must comply with the requirements contained within this manual. Our intention is that the SSQM can be used as a tool to clarify communication and foster continuous improvement. Snap-on expects our suppliers to embrace the contents of this manual and incorporate it into their everyday operations and product development activity to assure the highest possible quality is achieved.

## **2. GOAL**

The goal of the SSQM is to provide a uniform and effective method of communicating the general requirements, expectations, and guidelines to the Snap-on supply chain. The SSQM defines the fundamental quality system activities that Snap-on expects from suppliers to ensure on-going quality planning, process control, and continuous improvement.

## **3. Snap-on VALUE CREATION**

- Safety
- Quality
- Customer Connection
- Innovation
- Rapid Continuous Improvement

#### 4. SAFETY

Safety is #1 for Snap-on. Safety is followed by management and associates in all the Snap-on facilities. It is up to each and every person to work safely and make sure others follow safe practices. To prevent any accidents, it is extremely important that the supplier also follows all instructions given by the facility contact. Always inquire about and follow all safety rules of any Snap-on facility before entering any of the work environments.

Be aware, that in some facilities safety shoes (steel toed shoes), safety glasses and hearing protection are required.

## Snap-on® Safety Policy

Snap-on Incorporated is committed to the safety of every associate by providing a safe work environment and to the safety of users of its products and services as stated in the SAFETY PHILOSOPHY and the PRODUCT SAFETY GUIDELINES.

### SAFETY PHILOSOPHY

THE SNAP-ON INCORPORATED SAFETY PHILOSOPHY is based on the belief that each associate must:

- ❖ Work safely as a condition of hire and continued employment,
- ❖ Accept personal responsibility for every associate's training,
- ❖ Successfully complete mandatory safety training,
- ❖ Be certain all unsafe acts and conditions are eliminated or safeguarded, and
- ❖ Believe that work related injuries are preventable and therefore unacceptable.

Management is responsible for ensuring that all associates work in a safe company.

### PRODUCT SAFETY GUIDELINES

THE SNAP-ON INCORPORATED PRODUCT SAFETY GUIDELINES are based on the belief that the safety of customers and users of Snap-on's products is of the highest importance, so we endeavor to:

- ❖ Provide safe products for customers and users of our products,
- ❖ Inform our customers of the safe use of our product by appropriate instructions and safety messages, and
- ❖ Conform to applicable safety standards.

**5. Quality Policy**

Snap-on Incorporated commits itself to uncompromising Quality as one of our highest objectives.

**Our Quality Policy is to:**

- Design, manufacture and market products that exhibit superior performance, reliability, durability and comfort that consistently meet or exceed the expectations of customers;
- Continuously improve quality, while providing complete and on-time delivery of quality products and services, in the most effective manner possible;
- Require each manager to deliver uncompromising quality in his or her organization, product or service;
- Establish and communicate to responsible associates relevant quality performance metrics; requires each associate to assume responsibility and be accountable for improving the quality of his or her work;
- Periodically review internal and external customer expectations and requirements.

**5.1 Production Supplier Certification**

Many suppliers are registered or are currently pursuing registration and compliance to standards audited by third party registrars such as ISO 9001 and TS 16949. The SSQM is based on Snap-on Global Quality Standards and ISO 9001. Snap-on encourages the supply chain to become compliant and certified to ISO 9001. To achieve continuous improvement, Snap-on expects our suppliers to embrace a sound quality system and to work with us in a spirit of trust, cooperation, and teamwork. Suppliers should perform a self-evaluation to determine whether their Quality system aligns with the SSQM. All Snap-on facilities will continue to embrace philosophies of continuous improvement. Through executing proper quality planning activities, Snap-on and our supply base will be able to install control measures to eliminate the issues that lead to customer dissatisfaction.

## 5.2 Change Management

Changes in design, process, or engineering that affect fit, form, function, or a significant dimensional feature require Snap-on approval prior to implementation. An approved deviation or PPAP approval is required prior to shipment of the modified component or process. Suppliers must also notify Snap-on in advance of any intended supply chain changes and obtain written approval prior to implementation. See section 7.4 in its entirety for additional information regarding change management.

## 6. Continuous Improvement

The supplier shall demonstrate a top management commitment to continuous improvement. A comprehensive philosophy of continuous improvement must be identifiable throughout the entire supplier organization. Suppliers must endeavor to make continuous improvements to the quality, deliveries, schedules and prices to the supplier's and Snap-on's benefit. The philosophy of continuous improvement should be extended to all business processes. Specified plans must be drawn up for those processes that are considered important. Snap-on encourages the supplier to work on:

- Error proofing/Mistake proofing techniques (POKA – YOKE)
- Lean manufacturing
- SPC
- SMED (Single Minute Exchange of Die)
- TPM (Total Productive Maintenance)



### **Expectations of Supplier to Grow Sales**

- **Quality:** Rejects/returns 3000ppm, or at least 10% less\*
- **Complete On Time (COT):** 100%, or at least 10% better\*
- **Flexibility:** Reduce lead time by at least 20%
- **Innovations:** Minimum 4 new improvement/product ideas
- **RCI/Competitiveness:** Reduce total cost of ownership by a minimum of 5%\*. Be available for RCI involvement.
- **Regulatory requirements Compliance:** Mandatory

**\*Supplier's Improvements Over Prior Year**

### **6.1 Standard Manufacturing Process**

Prior to ordering or implementing production tools suppliers must notify Snap-on of tooling design or modification that is not in accordance with standard tooling manufacturing practice for that industry. This includes molds, dies, cavities, and tooling of any kind for which a tooling standard exist for that industry.

## **7.0 Production Part Approval Process (PPAP)**

### **Purpose**

Provide a method of performing the Production Part Approval Process for purchased components or assemblies from direct suppliers of new parts, products, or following a design change.

### **7.1 PPAP Process**

For verification of purchased parts, Snap-on requires the supplier to submit a completed PPAP-package for each new part & other special cases. Snap-on personnel requesting the PPAP will act as the PPAP coordinator. In addition to the PPAP coordinator, suppliers are expected to work with Snap-on Purchasing, Product Management, Engineering, and Quality as needed to assure a successful on time launch. At the time of sourcing, the potential supplier will review the print or performance specifications to assess their ability to produce the product with zero defects and 100% on time delivery. At minimum the PPAP approval process shall consist of Purchasing, Quality, and the Product Engineer or Product Manager. PPAP levels vary depending on the complexity of the change. A brief description of each level is provided below. Purchased modules, Merchandise Products, and Service may follow an alternative approval process. For additional PPAP information see the Automotive Information Action Group (AIAG) PPAP Manual, Fourth Edition.

#### **Level 1 P P A P**

A level 1 PPAP submission consists of a warrant only. This is intended for changes in which dimension, fit, form, function, process, and appearance are not changed. An example would be the addition of a previously PPAPed ¼ inch socket to a set which does not have a ¼ inch socket. The ¼ inch socket is currently in use with other sets. The addition of the ¼ inch socket to the new set could be done using a level 1 PPAP to notify Snap-on Quality, Purchasing, Engineering or Product Management that a change is taking place.

**Level 2 PPAP (First Article Approval)**

A level 2 PPAP consists of a PPAP warrant, bubbled drawing, samples with measurements, and limited supporting data submitted to the customer. Similarly, some Snap-on facilities may use the First Article Approval (FAA) process. This is an acceptable subset of the PPAP process. Typically a First Article includes a bubbled drawing and sample parts with dimensional measurements. The inclusion of limited supporting data, such as some the PPAP elements described in section 7.4 is what distinguishes a First Article from a Level 2 PPAP. A FAA with supporting documentation is considered to be synonymous with a Level 2 PPAP. An example of a level 2 PPAP would be a stamping process that currently uses a ¼ inch stamping blank made of 4140 steel. A change will be made to include using a 3/8 inch thick blank made of 4140 steel from the same steel supplier. In this instance there is no change to the press, the die, the supplier, or material. Only the thickness of the material changed. Since the previously PPAP steel is being used from the same source, the supplier may be asked for a capability analysis on the material thickness in addition to the warrant, bubbled drawing, and samples with measurements.

**Level 3 PPAP**

A level 3 PPAP consists of a warrant, bubbled drawing, samples with measurements, along with full supporting data submitted to the customer. From the previous level 2 PPAP example, if the material changed from a ¼ inch thick 4140 steel blank to a 3/8 inch thick 304 stainless steel blank from the same supplier the customer may request a level 3 PPAP. Requested documents may include material certification, thickness capability data, control plan, and PFMEA; in addition to the warrant, bubbled drawing, and samples with measurements. Due to the material change more thorough documentation is necessary.

**Level 4 PPAP**

A level 4 PPAP consists of specific customer requirements in addition to the warrant, bubbled drawing, and samples with measurements. Using the Level 2 PPAP example assume a new application was developed that required the use of a 3/8 inch thick stamping blank made of 316 surgical stainless steel for the medical field. In addition to the requirements for the level 3 PPAP; the customer required the supplier to send the material to an outside accredited lab to verify the material composition and perform hardness checks. The supplier was also requested to supply a certificate of origin for each lot of 316 stainless steel. The addition of customer specific requirements would make this a level 4 PPAP.



**Level 5 PPAP**

A level 5 PPAP consists of the warrant with supporting data and documentation reviewed at the supplier's manufacturing site. This is similar to a process sign off where the supplier demonstrates they can meet production line rates. The readiness of the production process is also evaluated to verify supporting process documentation such as control plans, work instructions, PFMEA, and dimensional inspections sheets are thorough and complete. Even if an on-site level 5 PPAP is not required by Snap-on; the supplier should conduct a self-evaluated level 5 PPAP to generate the ISIR, capability data, and samples for dimensional measurement. If a production sample run is required parts from the level 5 PPAP can be used if the parts meet all print specifications and engineering requirements. In the example from the previous level 4 PPAP, due to the critical nature of the application requiring surgical stainless steel for the medical industry an on-site level 5 PPAP may be required.

**Raw Materials Suppliers**

Suppliers of raw materials such as coil steel, bar-stock, or cast raw materials may submit a PPAP based on materials certification or certificate of compliance. Approval may be subject to Snap-on verification. Evidence of authorization shall be the approved PPAP warrant.

**7.2 PPAP Requirements****Bubbled Drawing**

Specifications on the drawing are numbered and circled. The numbered sequence is used to document the specification and results in the Dimensional Results (ISIR) tab of the PPAP workbook.

**Sample PPAP Parts**

PPAP parts shall be taken from a significant run. This production run shall be manufactured at the production site, at the production rate, using the production tooling, gaging, process, materials, and operators. Parts from each unique production process stream shall be measured and representative parts tested. The sample quantity for PPAP will be agreed to with the PPAP coordinator.

**Dimensional Results**

Measurement results are recorded according to the sequence of the bubbled drawing in the PPAP Workbook. A 30 piece capability study or otherwise agreed upon qualification method is required for Critical or Major

specifications on the print or key quality features specified by Snap-on personnel. Any results that are outside specifications are cause for the supplier not to ship components. Every effort shall be made to correct the process so that all design record requirements are met. If the supplier is unable to meet any of these requirements, Snap-on shall be contacted for determination of appropriate corrective action.

### **7.3 PPAP Elements**

A PPAP-package may consist of the PPAP elements displayed below. Depending on the PPAP level, all items or records may not necessarily apply to every PPAP submission. For example, some parts do not have appearance requirements or color requirements. The Snap-on PPAP Workbook provides a guideline for which PPAP elements need to be provided based on the PPAP level. In cases where specifications & other requirements cannot be met, this should be clearly noted both on the specific form and in the PSW (Part Submission Warrant). The Snap-on PPAP coordinator or team should be contacted and advised of the discrepant conditions prior to submitting the PPAP. It will then be the decision of Snap-on whether to reject the PPAP and require resubmittal with satisfactory results prior to production shipment or to grant conditional approval while the corrective action plan for the discrepant condition is performed. Unless otherwise noted by a written agreement with Snap-on PPAP expense to be the responsibility of the supplier.

- Design Record
- Engineering Change Documents
- Customer Engineering Approval
- Design FMEA
- Process Flow Diagram
- Process FMEA
- Control Plan
- Measurement Systems Analysis Studies
- Dimensional Results (Initial Sample Inspection Report, ISIR)
- Material Performance Test Results
- Initial Process Studies (Capability)
- Appearance Approval Report (AAR)
- Sample Production Parts
- Master Sample
- Product Sample Run
- Customer specific Requirements

- PSW

The requirements for each element will be briefly described. For additional information, Snap-on encourages suppliers that are not familiar or need more background knowledge about the listed PPAP elements to acquire the most recent AIAG (AIAG - Automotive Industry Action Group) manuals.

Unless otherwise agreed to by Snap-on the PPAP must be supplied in the official language of the country from which the PPAP was requested.

### **Design Record**

The supplier shall have a copy of the design record for the saleable product. In all cases, the official design record is comprised of the top-level Snap-on drawing relating to the part component under consideration along with any other drawings, specifications, or electronic files referenced therein. If Snap-on does not have a top-level drawing for the part under consideration, Snap-on must have approved the drawing to be used. Where the design record is in electronic format, a hard copy (e.g. pictorial, geometric dimensioning & tolerancing, drawing) should be included to identify measurements taken.

### **Engineering Change Documents**

The supplier shall have any authorized engineering change documents, not yet recorded in the design record but incorporated in the product, part or tooling, in an engineering change management system.

### **Customer Engineering Approval**

Unless otherwise specified in writing, the drawing of reference shall be the Snap-on Engineering approved drawing. When required by Snap-on, suppliers shall have evidence of Snap-on engineering approval.

### **Design FMEA**

The supplier shall have a Design FMEA for parts or materials for which they are design- responsible. Whether submitted or retained, it must be prepared prior to PPAP submittal and made available to the Snap-on for review.

### **Process Flow Diagram**

The supplier shall have a process flow diagram (schematic representation) that clearly describes the production process steps, streams, and sequence.

Process flow diagrams for families of similar parts are acceptable if the new parts have been reviewed for commonality.

**Process FMEA**

The supplier shall have a Process FMEA. A single Process FMEA may be applied to a manufacturing process for a family of similar parts or materials. Snap-on expects its suppliers to utilize the PFMEA as a continuous improvement tool in addressing the highest RPN values with actions to reduce risk.

After the recommended action has been identified and implemented, make an evaluation of the changes to RPN value, and depending on whether adequate or inadequate act accordingly.

**Control Plan**

The supplier shall have a Control Plan or equivalent work instructions that define the controls, measurement method, and frequencies used to maintain process control. Variable gages are expected to be used for major, critical, and key characteristics unless agreed to by Snap-on.

**Measurement Systems Analysis Studies (Gage R&R)**

Gage Repeatability and Reproducibility (Gage R&R) studies are to be completed for all key characteristics where the measurements are made with nonstandard gauges or equipment. Raw data measurements, graphed analysis and results must be included in the submittal.

**Dimensional Results (Initial Sample Inspection Results-ISIR)**

The supplier shall provide evidence that dimensional verifications required by the design record (Engineering Print requirements including all notes as specified in the Snap-on top-level drawing) have been completed and results indicate compliance or noncompliance with specified requirements. The supplier is to provide a ballooned drawing with the ISIR for all Level 2 and beyond PPAP, and document all measurements on an agreed number of samples (typically 5). The supplier shall provide same for all unique process streams (e.g. machines /manufacturing locations, molds, dies). Snap-on's expectation is that all results are compliant. Any discrepancies shall be communicated to Snap-on prior to the submission of the PSW for review and disposition. In addition, process capability must be demonstrated on all special characteristics (see *Initial Process Studies (Capability)* following).

**Material, Performance Test Results**

The Supplier, or a qualified independent third party, shall provide specific material, performance and/or durability test results. Actual results must be compared with agreed specifications. For certain parts, Snap-on may require third party testing, as necessary.

All independent laboratories used for inspection, test, or calibration services by Suppliers, shall be accredited to ISO/IEC 17025, or equivalent national requirements, subject to verification by Snap-on.

**Initial Process Studies (Capability)**

The supplier shall perform initial process studies on all special characteristics such as Critical and Major dimensions specified on the print or key quality characteristics discussed with the Snap-on PPAP team. The expected level of initial process capability shall have demonstrated  $C_p$  and  $C_{pk} \geq 1.33$  (short term capability and performance respectively) prior to submission for all special characteristics. Although capability data is not required for non-special characteristics, the supplier is required to maintain process control to ensure all dimensions and features are compliant to print specifications and engineering requirements. Non-special characteristics should have  $C_p \geq 1$ . Raw data measurements, graphed analysis and results for non-special characteristics may be included with the submittal.

In the event that the supplier is unable to meet the stated process capability, the supplier is responsible for implementing sufficient controls, gauging, and inspection to assure no nonconforming product is shipped and that the product complies to all print specifications. This may include the development of control plans, work instructions, AQL inspection or 100% inspection to meet all print specifications.

Special Characteristics will be communicated through various methods, including notations and/or symbols documented on Snap-on engineering drawings, or communication of Customer Specific Requirements.

**Appearance Approval Report (AAR)**

A separate Appearance Approval Report (AAR) shall be completed for each part or series of parts for which a submission is required if the product/part has appearance requirements on the design record.

AAR typically applies only for parts with color, grain, or surface appearance requirements.

**Master Sample**

Suppliers should retain a master sample for the same period as the PPAP records, or until a new master sample is produced for the same customer part number for customer approval, or where a master sample is required by the design record or control plan.

The master sample shall be identified as such, and shall indicate the customer approval date. If a master sample is required, it shall include one for each of multiple cavities, molds, dies, or patterns employed, unless accepted by Snap-on. The purpose of the master sample is to provide a reference point to the initial product/ process status.

**Production Sample Run (PSR)**

The supplier may be requested to provide a number of sample parts from the PPAP production run, which could include the samples measured for dimensional results and the parts used for the initial process studies. The Production Sample Run may be used to evaluate fit, form, and function at the Snap-on facility. The PSR shall be manufactured at the production site, at the production rate, using the production tooling, gaging, process, materials, and operators. The components must comply with all print and Engineering specifications. All Engineering and dimensional analysis of the components should be performed prior to conducting a PSR, as the components involved are intended for final customer usage. PSR quantity to be determined by supplier and Snap-on PPAP coordinator.

**Customer Specific Requirements**

Snap-on suppliers shall have records specific to requirements specified. For bulk materials, any customer-specific requirements shall be documented.

**Part Submission Warrant (PSW)**

Upon satisfactory completion of all required measurements and tests, the supplier shall record the required information in the PPAP Playbook.

A separate PSW shall be completed for each part number unless otherwise agreed to by Snap-on. The supplier shall verify that all of the measurement and test results show conformance with Snap-on requirements and that all required documentation is available. Suppliers shall not ship any product, until a full or conditional approval is received from Snap-on through a signed Part Submission Warrant (PSW). In the case, where full approval

is not granted, Snap-on will advise the supplier of the areas of concern. The supplier shall make corrections accordingly and resubmit the PSW.

**7.4 Submission and Notification to Snap-on**

**7.4.1 Submission to Snap-on**

Suppliers shall submit a PSW for approval prior of the first production shipment per the following situations.

Requirement	Clarification or examples
1. A new part or product	Submission is required for initial release of a new product (part). A new part/product or material added to a family may use appropriate PPAP documentation from a previously fully approved part within the same product family. Documentation of specific or unique changes may be required.
2. Correction of a discrepancy on a previously submitted PSW that was determined failed or was given conditional approval	Submission is required to correct any discrepancies on previously submitted part.
3. Snap-on change to design record	Submission may be required on any engineering change to the design record.  Unless otherwise specified by Snap-on, PPAP is required for any engineering change to the design record. Where PPAP is not required, the supplier shall keep a recording indicating PPAP requirement was omitted.

**7.4.2 Notification to Snap-on**

Supplier shall notify Snap-on of any design or process changes as indicated in the table below. Where fit, form, function, or a significant dimensional feature is affected approval is required prior to the change. PPAP approval or an approved deviation is required prior to shipment of the modified components or product from the modified process. Where uncertainty exists the supplier should consult with Snap-on personnel regarding PPAP requirements and document results of the inquiry. Please review the table below for a description of some of the changes that require PPAP approval.

Requirement	Clarification or Examples
<p>1. Use of other construction or material than what was used in the previously approved part or product.</p>	<p>For example, construction other than what is documented on a deviation (permit) or included as a note on the design record and not covered by an engineering change.</p>
<p>2. Production from new or modified tools such as dies, molds, patterns, etc, including additional or replacement tooling.</p> <p>(Notification is not necessary for replacement of perishable tools from a previously approved process of the same grade and type such as drills, taps, and inserts.)</p>	<p>This requirement only applies to tools, which due to their unique form or function can be expected to influence the integrity of the final product. It is not meant to describe standard tools (new or repaired of same make and type), such as standard measuring devices, drivers (manual or power), etc.</p>
<p>3. Production following upgrade or rearrangement of existing tooling or equipment.</p>	<p>Upgrade means the reconstruction and/or modification of a tool or machine or to increase the capacity, performance, or change its existing function. This is not meant to be confused with normal maintenance, repair or replacement of parts, etc., for which no change in performance is to be expected and post repair verification methods have been established.</p> <p>Rearrangement is defined as activity that changes the sequence of product/process flow from that documented in the process flow diagram (including the addition of a new process).</p> <p>Minor adjustments of production equipment may be required to meet safety requirements such as, installation of protective covers, elimination of potential ESD risks, etc. These changes can be made without customer approval unless the process flow is changed as a result of this adjustment.</p>



<p>4. Production from tooling and equipment transferred to a different plant site or from an additional plant site.</p>	<p>Production process tooling and/or equipment transferred between buildings or facilities in one or more sites.</p>
<p>5. Change of subcontractor for parts, non-equivalent materials or services (e.g. heat-treating, plating).</p>	<p>Snap-on and its suppliers are responsible for approval of subcontracted material and services.</p>
<p>6. Product produced after the tooling has been inactive for volume production for twelve months or more.</p>	<p>Where no active purchase order and the existing tooling has been inactive for volume production for twelve months or more. The only exception is when the part has low volume, e.g. service or specialty vehicles. However, a customer may specify certain PPAP requirements for service parts.</p>
<p>7. Product and process changes related to components of the production product manufactured internally or manufactured by subcontractors. Additionally, Snap-on and its suppliers shall concur with any requests by a subcontractor before the change occurs.</p>	<p>Any change that affects customer requirements for fit, form, function, performance, and/or durability requires notification to the customer.</p>
<p>8. Change in test/inspection method, equipment, or new technique (no effect on acceptance criteria)</p>	<p>Snap-on and its suppliers should have evidence that the new method or equipment provides results equivalent to the previous method or equipment.</p>
<p>9. New source of raw material from new or existing supplier</p>	<p>These changes would normally be expected to have an effect on the performance of the product.</p>
<p>10. Change in equipment.</p>	<p>Examples are new equipment, alternate or additional equipment, replacement, or in size.</p>

11. Tooling or equipment moved to a different location within the same plant (unless designed to be mobile).	Based on lean manufacturing initiatives, some equipment is designed for mobility, i.e. on wheels with quick disconnects. Equipment of this type generally does not require disassembly, or special preparation prior to movement, nor activities such as re-leveling or realignment, subsequent to a move.
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To assist the supplier in the preparation of these PPAP steps, Snap-on provides the suppliers with the appropriate PPAP forms. The supplier is required to use these forms, unless the supplier's forms and resulting field information are equivalent to the forms provided by Snap-on.

### 7.5 Supplier Notification of a PSW

The assigned Snap-on Quality, Purchasing, or Engineering representative will complete the following steps of the PSW prior to supplier submission of the PPAP package:

- Part identification information
- Engineering and design specific information
- Requested submission level
- Reason for submission
- Supplier manufacturing information
- Submission information

The supplier shall then submit the PPAP package and complete the remaining fields on the PSW:

- Submission Results
- Declaration (including production rate)

The supplier must authorize the PSW by signing and dating the PSW. A manager level signature is required.

**7.6 Snap-on Receipt of the PSW**

The assigned Snap-on Quality, Purchasing, or Engineering representative will coordinate the review of the supplier PSW and samples.

The Snap-on representative will work with the supplier to verify that proper corrective actions are in place for each non-conforming category requirement prior to start of production.

**Disposition of the Supplier PSW**

By signing and dating the PSW form, the assigned Snap-on representative will provide one of the following dispositions:

**Approved for Production**

Approval will be granted if all applicable requirements are met and permanent corrective actions are implemented for all non-conforming category requirements. Samples must meet all form, fit, function, visual, and any reliability test requirements.

**Conditional Approval**

In the event that a dimensional specification, test result, material specification, or any other PPAP requirement has not been met, “Conditional Approval” may be granted as long as samples meet minimum form, fit, function and reliability requirements.

Conditional approval cannot be granted unless temporary corrective actions are in place for all nonconforming category requirements or Snap-on Design Engineering agrees that the non-conformance will not create a customer complaint or safety concern. A conditional approval expiration date must be given to notify the supplier that a resubmission for final approval must be complete to finalize “Approval” of the part.

**Rejected**

A rejection will be issued to the supplier if samples do not meet all form, fit, function and applicable reliability or dimensional requirements. Temporary and / or permanent corrective actions for non-conformances must be submitted to the assigned Quality/Purchasing representative to gain either Conditional or Full Part Approval.

**7.7 Communicate PSW Disposition**

The assigned Snap-on representative will use the PSW to communicate to the supplier one of the 3 noted dispositions:

**Approved for Production**

The PSW will be routed directly to the supplier.

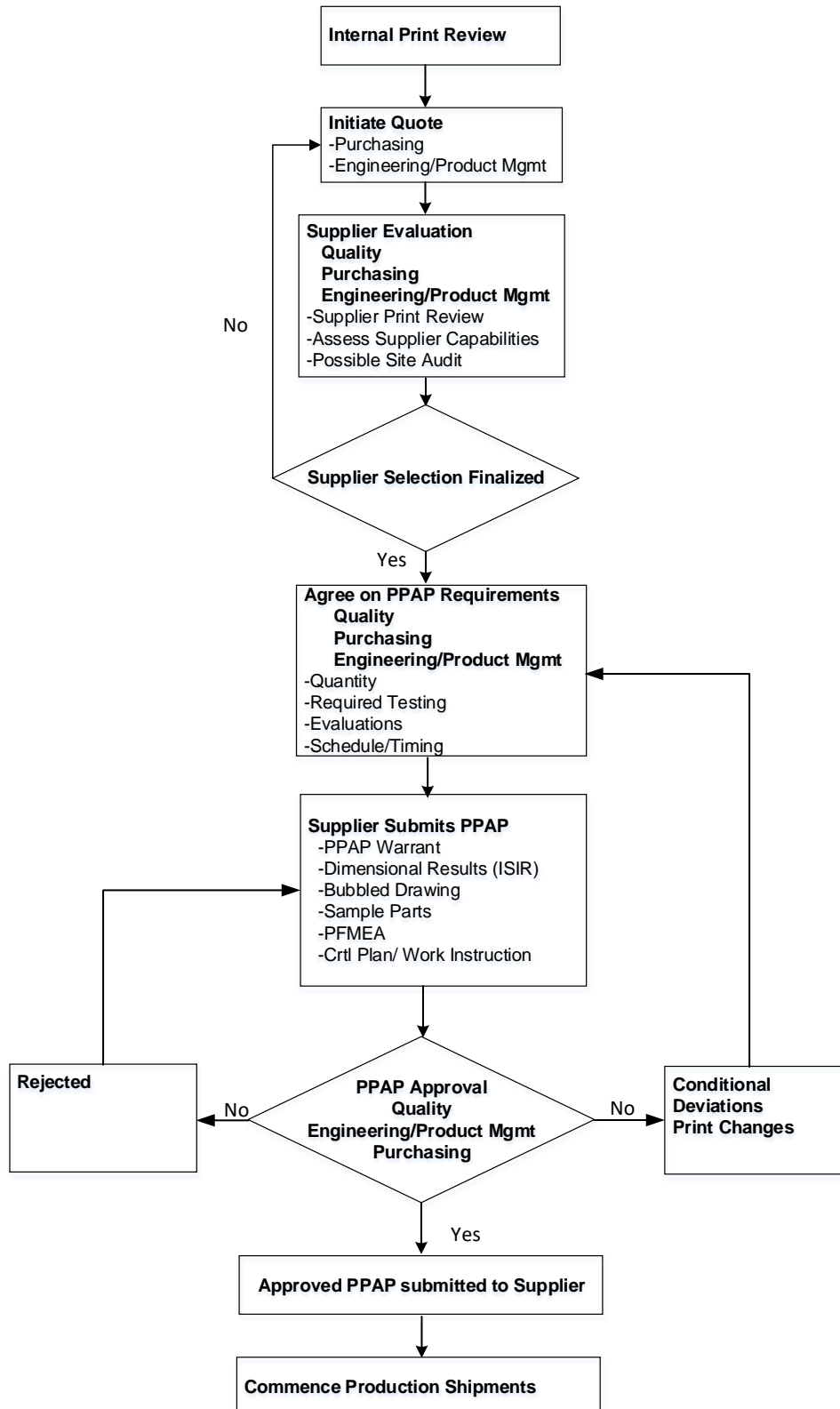
**Conditional Approval for Production**

The PSW will be given an expiration date for the conditional approval and routed directly to the supplier. The supplier must re-submit the PSW for a final approval prior to the expiration date of the conditional approval.

**Rejected**

The PSW will be routed directly to the supplier. The supplier must resubmit the PSW for a final approval.

## Snap-on PPAP Approval Process



**8. SUPPLIER NON-CONFORMANCE****8.1 Purpose**

Directs the actions of Snap-on and supplier personnel in the coordination of corrective actions for supplier responsible non-conformances. This section applies to any non-conformance, found on production parts, suspected to be the responsibility of the supplier.

**8.2 Nonconformance Management Requirements**

The supplier must have a system in place that requires formal process and documentation for internal and external compliance to Snap-on specifications. The system must provide for identification, location, documentation, evaluation, isolation, disposition of nonconforming parts and for notification to the departments concerned (both internal and external). Supplier management must have a high focus on determining root cause (both at hardware and at system/process level) and must have a system, for routing customer corrective action responses to management review. Snap-on expects the supplier's management team to require the organization to get to the process/system level root cause, and provide appropriate direction to the organization if corrective actions do not identify process/system level root cause.

**8.3 8-D Problem Solving Method**

Snap-on personnel may request the supplier document actions taken to resolve a nonconformance using a corrective action report depending on the type, extent, and severity of the quality problem. Snap-on uses the 8-D problem solving method to investigate, eliminate and communicate the hardware and process/system level root causes of non-conformities and corrective actions. Suppliers are expected to use the 8-D problem solving method or an equivalent problem solving method. One of the objectives of the 8-D report should be, to ensure an effective exchange of information between the 8-D team members. Snap-on expects the process/system level root cause to be identified and followed by corrective actions. Definitions for hardware and process/system level root causes are:

**Hardware Level Root Cause:**

The cause of the failure from which the defect occurred based on the immediate series of actions which impacted the problem during the manufacturing of the product. (I.e. fixture, die, machine, operator, etc.)

**Process/System Level Root Cause:**

The cause of the failure based on the corporate system that allowed the hardware failure to occur. (I.e. APQP Process, Launch Process, Training Process, FMEA Process, Human Resources, etc.)

**The 8-D disciplines are:**

- 1-D: Use the team approach, select a team
- 2-D: Describe the problem
- 3-D: Implement and verify interim action, containment effort
- 4-D: Define and verify the root cause(s)
  - Identify potential cause(s)
  - Analyze potential cause(s)
  - Validate the root cause, repeat the fault by intention
  - Identify alternative solutions
- 5-D: Choose and verify the effectiveness of the permanent corrective action
- 6-D: Implement permanent corrective action
- 7-D: Prevent recurrence of the problem
- 8-D: Congratulate your team.

**Note:**

For more information about the 8-D method, please contact the Snap-on Quality/Purchasing representative and request Ref. SOI Document.

**8.4 Supplier Corrective Action Expectations**

To meet Snap-on expectations and prevent further defective material from leaving the supplier facility, it is imperative that the supplier takes immediate action and initiates containment (step 3 in 8- D). The supplier is responsible for both containing non-conforming material at their location, as well as material in-transit, at sub-suppliers, or other lots already delivered to Snap-on. If the supplier fails to initiate immediate action and containment or it is determined to be ineffective, Snap-on may use a third party service at supplier's expense.

If the supplier suspects non-conforming parts have been shipped to a Snap-on facility or finds nonconforming parts within the suppliers finished goods inventory, Snap-on expects the supplier to immediately notify Snap-on of the problem. Snap-on will look positively on a supplier that takes the initiative to inform Snap-on about a potential defect.

Snap-on expects the supplier to confirm the receipt of the problem/issue by appropriate means (telephone or e-mail, etc.) within 24 hours. Quicker response may be required based on the severity of the situation. Snap-on expects the supplier to define, implement and document the containment in the 8-D report within 48 hours. In some situations Snap-on may decide to visit the supplier or subcontractor in order to participate in the mutual problem solving.

The supplier must formally report the cause of the non-conformance and the corrective action identified to prevent recurrence to Snap-on within 2 weeks of being notified of the issue using the 8-D report. The supplier must respond with the 8-D by the due date even if the permanent corrective action has not yet been determined. In this instance the supplier is expected to provide an expected follow-up date, and upon completion, re-submit the reply.

No rework of material is authorized without prior Snap-on approval. Rework must be supported by operating and inspection instructions. Snap-on may require special identification and segregation of the reworked product

### **8.5 Supplier Request for Deviation**

The supplier must always request, in writing, a formal deviation (or concession) which is approved by Snap-on before shipping non-conforming material to Snap-on. A supplier request for deviation must inform about agreed quantity and a date. The supplier must fill out a supplier request for deviation form and return it for approval. If the deviation is approved by Snap-on, a copy of the signed request for deviation must be placed in each shipment being delivered to Snap-on. Otherwise parts will not be accepted. A plan to return to normal (conforming material) production and the time required to do so shall be submitted at same time as the written request

## **9. Return of Nonconforming Parts and Chargeback Guidelines**

### **9.1 Return of Non-conforming Parts**

When Snap-on returns non-conforming parts to the supplier, a debit note will be created. This debit note will be deducted in future payments to the supplier. The supplier will be informed by mail or email about the debit note. The supplier should not send any credit note to Snap-on accounts department. If it turns out that returned parts meet specification and Snap-on agrees, the registered parts will not be counted in PPM. If agreed, the supplier has the possibility to send parts back on a new order.

### **9.2 Chargeback Guidelines**

Costs associated with supplier part quality issues that are discovered in our factories, in the field, in repair or distribution centers, or in customers' machines within the specified warranty period, that are deemed the supplier's responsibility may be charged back to the supplier. Other costs that are associated with lost production due to supplier quality issues and PPAP rejection issues may also be charged back to the supplier.



**Factory Defects:**

Snap-on will debit the supplier all costs associated with the repair (incl. labor), replacement, segregation, and lost production.

**Field Defects:**

Snap-on may debit the supplier all costs associated with parts and labor for repair. The warranty period is outlined in Snap-on's Warranty Policy that is mentioned in the Purchase order.

The supplier may visit Snap-on upon receipt of an 8-D or problem solving report to review the issue and accept or refute responsibility prior to being charged. The supplier, if found responsible, will pay the costs associated with the quality issue at the prevailing Snap-on rate.

**10. SUPPLIER INTERNAL PERFORMANCE EVALUATION****10.1 Purpose**

To define Parameters suppliers should evaluate to meet Snap-on Expectations

Snap-on expects suppliers to monitor and review performance metrics for their operations. The metrics should include at the least, on-time-delivery, internal quality (scrap, PPM or FPY), external quality rejections (PPM), Cost, Market analysis, and responsiveness. The supplier's internal metric calculations must meet the intent of effectively evaluating the supplier's system vs. customer expectations. Furthermore, the supplier must take action and focus on their system when the metrics do not meet the targets set.

### 10.2 PPM Rating

The quality performance rating is measured in rejected Parts Per Million (PPM) for each supplier. The rating gives evidence of part quality and rates all non-conformities found on the Snap-on production line or in incoming inspection.

$$\begin{aligned} \text{Rate} &= \frac{\text{Rejected parts}}{\text{Received parts}} \times 1,000,000 \text{ [PPM]} \\ &= \frac{\text{Quantity returned} + \text{Quantity scrapped} + \text{Quantity reworked}}{\text{Quantity received}} \times 1,000,000 \text{ [PPM]} \end{aligned}$$

The supplier PPM number will be calculated each month in a monthly value and a 12-months rolling value.

### 10.3 PPM Definitions

#### **Received Parts (including sub-assemblies):**

Rating only incorporates the parts released for series production.

Note: Prototypes, parts used for testing or unreleased parts are not included

#### **Rejected Parts:**

Non-conformance discovered at the Snap-on location. Non-conformities include faults in manufacture, assembly, specifications and shipping errors (incorrect quantity, incorrect part number, etc.)

Rejects are non-conforming parts returned to the supplier, parts scrapped at Snap-on, and parts reworked by Snap-on personnel.

**10.4 Counting PPM Rejects:**

The criteria for rejections and the number of non-conformities counted are specified in the table below.

		Counting	
	<u>Found by</u>	<u>Rejects</u>	<u>Quantity</u>
<b>At Snap-on location:</b>			
1. Non-conforming part found			
1.1 – on Snap-on production line or in incoming inspection	Snap-on	Yes	all parts
	Supplier	Yes	all parts
1.2 – Snap-on inventory			
	Snap-on	Yes	all parts
	Supplier	Yes	all parts
1.3 – Supplier stock.			
	Snap-on	No	none
2. Shipment error received by Snap-on			
2.1 – Non-conformities found in receiving area			
2.1.1 - incorrect quantity (ex. documented 10 received 5)	Snap-on	Yes	parts *
* difference between actually received and documented (pack list)			
2.1.2 - incorrect part number - single-pack, multi-pack, pallet	Snap-on	Yes	all parts
2.2 – Non-conformities found after acceptance in receiving area	Snap-on	Yes	see 1.1 or 1.2
<b>At Supplier facility:</b>			
– Non-conforming part found in stock	Supplier	No	none

If a returned part meets stated part specifications and Snap-on agrees, the registered parts shall not be counted.

**10.5 On-Time-Delivery Rating**

The delivery performance rating is measured based on expected delivery to the Snap-on facility per the ERP/MRP schedule, purchasing or stocking agreement. Suppliers may be asked to carry finished inventory or work in process in order to accommodate a significant spike in demand. In addition to monitoring the MRP/ERP schedule, suppliers should check with their Materials/Purchasing Manager, Buyer, or Planner as needed to determine a demand shift. Failure to meet a reasonable demand shift may negatively impact the supplier's delivery rating as agreed to by the Materials/Purchasing Manager, Buyer, or Planner.

**10.6 Supplier Market Analysis**

Snap-on Suppliers must regularly complete a market evaluation of their products, services, manufacturing process, and supply chain to remain cost competitive. Snap-on suppliers are encouraged to provide recommendations for new innovations or lean manufacturing that enhance the competitiveness of their products or services. In addition to maintaining good quality and delivery; suppliers that are able to maintain or lower the cost of their goods and services may receive priority consideration for new opportunities. When requesting a price increase for goods and services, Snap-on suppliers must provide a detailed justification of the price increase to their procurement representative for review.

**10.7 Service**

A number of factors are used to evaluate the suppliers service contribution including promptness, responsiveness, first time correct completion, value added relationship; timely submission of corrective actions, and location support. A brief description of each is included below.

**Availability:**

Availability is measured in terms of ease of contact with the supplier or how easily information is obtained. Having to make repeated attempts to contact suppliers or repeated attempts to obtain information after the initial attempt may negatively impact service score.

**Responsiveness:**

Responsiveness is measured in terms of elapsed time from initial contact. Long response time may negatively impact service score.

**First Time Correct Completion:**

First time correct completion is a measurement of whether the service is performed correctly the first time. Parts that have to be reworked in order to be acceptable are counted against first time correct completion. Likewise, repeated attempts to perform a service are counted against first time correct completion. Low first time correct completion may negatively impact service score.

**Value Added Relationship:**

Suppliers may increase value added relationship based on strategic or competitive advantage offered by their products or services. Superior customer

service, post-sales support, and assistance with product utilization are good examples of value added relationship. All goods and services provided by suppliers are subject to the Snap-on Supplier Code of Business Conduct.

**Timely Completion of Corrective Action:**

Snap-on suppliers are expected to acknowledge a rejection within 24 hours and begin initial containment. Replacement parts and containment of all suspect parts in transit is required within 24-48 hours. Completed corrective is expected within 14 business days. Suppliers may request additional time for completion of corrective action as agreed to by the Procurement or Quality representative at the Snap-on facility.

**Location Support**

Suppliers are expected to interact with the Snap-on locations with enough frequency to ensure their products or services are value added. Location support may occur in the form of calls, teleconference or email. Site visits to monitor performance are encouraged.

**11 Supplier Business Review (SBR)****11.1 Purpose**

To define a recommended method for evaluating overall supplier performance.

Due to the diverse nature of Snap-on operations it is difficult to establish a single methodology for evaluating supplier performance. The Supplier Business Review process is utilized within the Snap-on Tools organization. Individual Snap-on business units may define their own process for evaluating supplier performance.

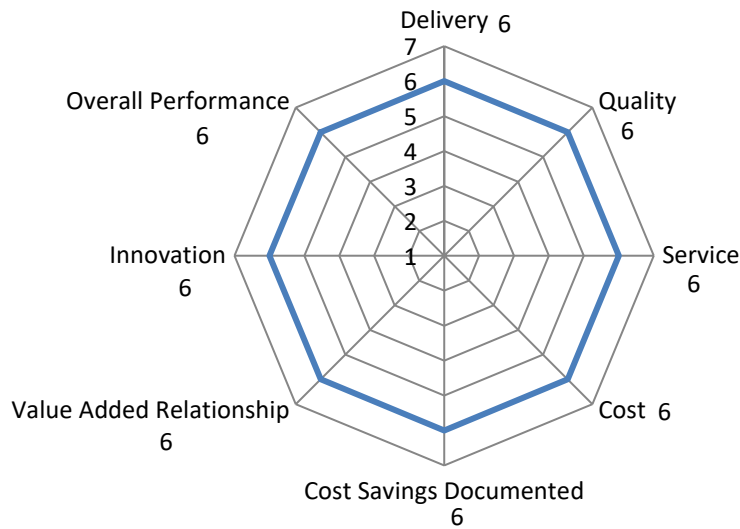
SBR are conducted strategically with key suppliers to assess overall business performance. Suppliers are evaluated based on Quality, Delivery, Cost, Service, Cost Savings Documented, Value Added Relationship, Innovation, and Overall Performance. The metrics are assessed according to the scoring scale below. Suppliers are requested to participate in SBR on an as needed basis. Suppliers are notified in advance of their participation in SBR and the necessary requirements.

**Scale**

- 1- Not Acceptable
- 2- Poor
- 3- Marginal

- 4- Acceptable
- 5- Good
- 6- Very Good
- 7- Outstanding

## Supplier Business Review Scoring Chart



### 12. GENERAL REQUIREMENTS

These are also part of the suppliers' agreement for the "Finished Products", "Raw Materials" and "P. O. Terms & Conditions".

**12.1 Snap-on SUPPLIER QUALITY SYSTEM**

The Products shall be: free from manufacturing defects; manufactured in accordance with agreed specifications, samples and applicable Laws; clear of all liens and encumbrances with good and marketable title; and merchantable and fit for the purposes for which the Products are intended to be used.

**12.2 IDENTIFICATION OF COUNTRY OF ORIGIN**

In some instances Snap-on regionally sources components for its finished assemblies. It is important that suppliers notify Snap-on Procurement and Quality in writing of components that will be manufactured in a country different than the country where the component was sourced.

**12.3 SUPPLIER FACILITY ACCESS**

By prior notice, suppliers shall allow Snap-on access to both their facilities and those of their suppliers and sub-contractors, for the purpose of evaluating parts, processes, documents (i.e. FMEA, Control Plan, instructions, records...), methodologies and systems used in manufacturing Snap-on products.

**12.4 MUTUAL CONFIDENTIALITY**

During the course of dealings with the suppliers Snap-on may periodically disclose Confidential Information.. All information is to be treated as Confidential Information even disclosed in oral or visual form, and will be governed by the provisions of the Snap-on Mutual Confidentiality.

**12.5 SUPPLIER CODE OF BUSINESS CONDUCT**

Guided by our core beliefs and values as laid out in the “Who We Are” statement, Snap-on’s commitment to integrity and social responsibility extends to its worldwide supply base. Snap-on expects all suppliers, regardless of location, to conduct business to our standards and adhere to the Supplier Code of Business Conduct.

**12.6 ANTI-CORRUPTION COMPLIANCE**

Supplier will comply at all times with applicable laws, regulations, orders, judicial decisions and international financial institution rules regarding corruption, bribery, ethical business conduct, money laundering, political contributions, gifts and gratuities, or lawful expenses to public officials and private persons, agency relationships, commissions, lobbying, books and records and financial controls (“Anti-Corruption Laws”). The Anti-Corruption Laws include, without limitation, the Foreign Corrupt Practices Act, a law of the United States of America and the United Kingdom Bribery Act, a law of the United Kingdom.

**12.7 PRODUCT REGULATORY COMPLIANCE**

Snap-on requires its suppliers to comply with the product regulatory requirements applicable to the goods supplied based on location of manufacture and locations of our customers. This includes but is not limited to safety and environmental certificates, requirements, and approvals; radio transmission certification; EMC compliance; FCC restrictions; and energy efficiency requirements.

Banned substances, which under no circumstances shall be present in our products, or used in the processes used to manufacture Snap-on products.

Restricted substances, which are allowed, but should, if possible, be replaced with acceptable alternatives.

From time to time, governmental authorities issue product-based directives that regulate product content in a manner which restricts ingredients or imparts a ban on the sale of non-compliant products or packaging in designated geographic regions. Examples include, without limitation, RoHS, WEEE, decaBDE, REACH, DMF regulations in the European Union, and Proposition 65 in California.

In addition, Snap-on is subject to regulations regarding CONFLICT MINERALS as set forth in Section 13(p) of the Securities Exchange Act of 1934, and any rules and regulations promulgated from time to time with respect thereto (the “Conflict Minerals Rules”).

Supplier will complete specific Snap-on compliance surveys upon request, and may undergo periodic audits conducted by Snap-on, or by a third party designated by Snap-on, to verify compliance with applicable product requirements and to enable Snap-on to comply with its obligations under the Conflict Minerals Rules.

**12.8 HAZARDOUS PRODUCT LABELING**

All hazardous materials shall have HAZARDOUS PRODUCT LABELING as defined by applicable United States federal, state and local statutes, laws, propositions, and regulations (“Laws”), as required by such laws. Supplier to comply with all Laws relating to the environment including those relating to the packaging, labeling, and distribution of



Products that contain hazardous materials, including but not limited to California Proposition 65 and the Hazardous Communication Standards promulgated by the United States Occupational Safety and Health Administration.

### **12.9 PERFORMANCE METRICS**

Supplier must meet or exceed the minimum performance metrics as set forth by Snap-on (for example: Quality, Complete-On-Time (COT), Cost, etc.). On all Product shipments, Supplier shall inspect for quantity and quality. Snap-on or its agents shall have the right to make its own inspection and reject any Products not complying with any PO. Snap-on may dispatch, at its own expense, a quality control person to work with Supplier personnel for purposes of inspection of any aspect of production by Supplier. Such persons shall have unrestricted access to that portion of Suppliers' plant facilities where Products are manufactured; may take possession and control of a reasonable number of samples, and shall have the right to review quality control with respect to the material and workmanship of products being manufactured by Supplier.

### **12.10 CONTINGENCY PLAN**

Suppliers shall develop a contingency plan for potential bankruptcy or catastrophes disrupting product flow to Snap-on and advise Snap-on at the earliest in the event of a bankruptcy or actual disaster. In a bankruptcy or actual catastrophe, suppliers shall provide Snap-on or Snap-on third party access to Snap-on tools and/or their replacements.

### **12.11 Customs Trade Partnership Against Terrorism C-TPAT**

Information regarding C-TPAT is available on the Snap-on intranet website or via the link below. See your Snap-on management representative for additional information regarding C-TPAT.

[C-TPAT Link](#)



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## SNAP-ON QUALITY STANDARD

### 13. REFERENCE

Snap-on Documents

**Contents**

**CS60.11.41 8-D Problem Solving**

**CS60.10.2-1 Request for Deviation**

#### **Snap-on PPAP Workbook**

- Control Plan Requirements
- Failure Mode and Effects Analysis
- Capability Studies
- Process Flow Diagram
- Gage R & R (Measurement Systems Analysis)

#### **Additional standards can be obtained from [www. AIAG.org](http://www.AIAG.org)**

- AIAG Manual- AIAG Manual "Production Part Approval Process" (PPAP)
- AIAG Manual "Measurement System Analysis" (MSA)
- AIAG Manual "Potential the Failure Mode and Effects Analysis" (FMEA)
- AIAG Manual "Statistical Process Control" (SPC)
- AIAG Manual "Advanced Product Quality Planning (APQP) and Control Plan