



SUPPLIER REQUIREMENT MANUAL

Timken SMO LLC

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Forward / Introduction

Suppliers are responsible for the quality of their products and services.

The goal of Timken SMO, LLC Supplier Requirements Manual is to communicate clearly the conditions for doing business regarding quality with Timken SMO, LLC to develop systems that drive continuous improvement, prevent defects, reduce variation and waste in the entire supply chain. Information presented in this manual takes precedence, unless officially notified by authorized Timken SMO, LLC personnel.

Our suppliers are expected to have zero quality incidents and zero disruptions, provide products with zero defects, and have flawless delivery performance and on time responsiveness to issues.

The Scope of this manual applies to the product quality of all suppliers of raw materials, production materials and purchase for resale components.

The original of this manual is a controlled document. Copies of the Timken SMO, LLC Supplier Requirements Manual distributed to suppliers, printed or downloaded are considered uncontrolled and will not be automatically updated.

Suppliers will be notified of changes to this document.

Suppliers are responsible for ensuring that products and services they supply conform to the latest revision of this document when shown on purchase orders, supply agreements, mailing or electronically transmission.

Failure to include reference to the Timken SMO, LLC Supplier Requirement Manual in a request for quote, purchase order or supply agreement does not excuse Suppliers from compliance.

Standard Requirements – Quality

To be a supplier to Timken SMO, LLC, all suppliers must meet our requirements for quality

Our standard requirements include:

- 1) **Planning for Quality / Advanced Product Quality Planning (APQP):** When requested, the Supplier must have resources available and be capable of participating in Quality Planning / APQP, including such efforts as Feasibility Reviews, FMEA's, Design Reviews, Prototype Production, and Production Part Approval Process.
- 2) **Corrective Action:** In the event of a quality issue related to a supplier's products, the supplier will be required to provide a written corrective action report. The report will be filed electronically by a Timken SMO, LLC Employee.
- 3) **Hazardous Materials:** All information related to Hazardous Materials, and the fulfillment of all governmental and safety requirements must be provided by the supplier. Supplier will be required to submit Safety Data Sheets (SDS) for all identified items.
- 4) **Managing Change:** Suppliers must agree to notify Timken SMO, LLC of any intended process, product or source change and obtain Timken SMO, LLC approval prior to implementation. Customary changes to the process based on feedstock and environmental variation to maintain adherence to specification need not be reported. Suppliers must also make this a condition of their own entire supply chain. In some cases, samples and documentation will be required as part of the approval process.
- 5) **Material and Process Specifications:** Suppliers must produce for Timken SMO, LLC products to the specific material and process specifications. In certain cases, we will require approval of the supplier's sub-suppliers.
- 6) **Material Source Approval:** For custom material, The Timken SMO, LLC must approve all material sources.
- 7) **Non-Conforming Product:** Suppliers must only ship product that meets specification, or obtain a written deviation prior to shipment for any non-conforming product. Timken SMO, LLC consent to shipping non-conforming product does not relieve supplier of its responsibilities to Timken SMO, LLC.
- 8) **Quality Management System:** Suppliers must have a documented quality management system and agree to on-site assessments. Suppliers may be required to be registered to ISO 9001:20xx, ISO/TS 16949:20xx or AS 9100:20xx. As appropriate, ISO 14001:20xx registration or conformance may be required.
- 9) **Records:** Suppliers must maintain certain records for defined periods. Timken SMO, LLC will advise suppliers as to what records are to be retained and for how long.
- 10) **Shipment and Packaging Requirements:** Suppliers must comply with Timken SMO, LLC specifications for shipping and packaging. This includes labeling specifications or requirements.
- 11) **Supplier Escalation:** A supplier will be placed on an increased level of audit and surveillance as a result of the supplier's inability to meet Timken SMO, LLC defined expectations in the areas of quality and/or delivery.

- 12) Supplier Cost Recovery and Chargeback Process:** *A formal process where Timken SMO, LLC will recover costs associated with a supplier's unacceptable performance.*
- 13) Supply Chain Management:** Suppliers must be willing to identify and manage their own entire supply chain. It is a supplier's responsibility to ensure that its sub-suppliers meet Timken SMO, LLC requirements.
- 14) Traceability:** Product traceability is a requirement. Suppliers must provide unique identification of product batches/lots as required by Timken SMO, LLC
- 15) Verification of Purchased Product:** Suppliers must allow on-site product verification by The SMO LLC., its customer, or the customer's representative. All such visits will be negotiated and arranged by Timken SMO, LLC and the supplier in advance.

These Standard Requirements are further detailed on the following pages.

1.0 Supplier Minimum Requirements

1.1 Introduction

Welcome to the Timken SMO, LLC Supplier Requirements Manual for Suppliers.

Suppliers are defined as those that provide products or services that constitute, in part or in whole, the products and services sold by Timken SMO, LLC.

Requirements described herein apply to all external Suppliers to the Power Transmission Belt business Timken SMO, LLC.

Suppliers of Indirect material shall comply with appropriate sections of the Supplier Requirement Manual as defined by purchase order requirements and/or other contractual obligations.

We expect Timken SMO, LLC quality reputation and Timken Brand Promise to be reflected in the products we purchase.

This manual defines the specific processes and information necessary to fulfill the intent of our Quality Policy which can be found on our company website. <http://www.carlislebelts.com/resources>

It is expected that our suppliers will use a continual improvement approach to assist Timken SMO, LLC in creating a lean supply chain that minimizes the total cost of ownership for the supplier and Timken SMO, LLC through:

- *Customer focused leadership* – Striving to understand and anticipate the needs of Timken SMO, LLC, and proactively establishing the infrastructure to meet those needs.
 - This includes innovation, collaboration, speed, inventory management, and cost competitiveness.
- *Execution excellence* – Flawless delivery performance with zero disruptions and zero quality issues.

1.2 Supplier Quality Management System Requirements

As a minimum, suppliers to Timken SMO, LLC are expected to conform and may be required to acquire the latest revision of ISO 9001:20xx, AS9100:20xx or ISO/TS 16949:20xx registration unless otherwise specified or approved by Timken.

In the event that a supplier to Timken does not have adequate resources to develop a Quality Management System according to ISO/TS 16949:20xx, AS9100:20xx or ISO 9001:20xx, Timken SMO, LLC will conduct audits on site using Supplier Risk Assessment audit or via the desk audit approach to assess gaps, identify risks and take appropriate actions to protect Timken and its customers.

Suppliers are required to notify, on a timely basis, the appropriate Timken SMO, LLC Procurement Agent if an ISO/TS registered supplier quality management system is notified of special status conditions (such as new business hold – quality, needs improvement status, Q1 revocation...etc.)

Timken SMO, LLC reserves the right to perform an on-site audit as deemed appropriate to verify conformance of supplier Quality Management System or to verify effectiveness regarding corrective or preventive actions assigned to the supplier.

Suppliers must allow Timken SMO, LLC customers, the customer's representatives, government or regulatory agencies the right to conduct surveillance of the supplier's quality systems at the Supplier's premises. This may include visits extended to sub-contracted suppliers of the supplier. All such visits required will be negotiated and arranged by Timken SMO, LLC and the supplier in advance.

Suppliers sub-contracting products or services to suppliers are required to provide to sub-tier suppliers the applicable requirements in the purchasing documents, including key characteristics (however named), material or process requirements where required.

1.3 Inspection of Product

In the absence of a purchasing or a supply agreement, the supplier must develop, implement and maintain inspection methods necessary to assure the product conforms to the requirements of Timken SMO, LLC. Inspection data shall be retained by the supplier and be made available upon request.

Suppliers must allow to Timken SMO, LLC, its customer(s), its customer's representative(s), government or regulatory agencies the right to verify at the supplier's premises that the purchased products conform to specified requirements. The Supplier shall not use such verification as evidence of effective control of quality. All such visits would be negotiated and arranged by Timken SMO, LLC and the supplier in advance.

Verification by Timken SMO, LLC, its customer(s), or its customer representative(s) shall not absolve the supplier of the responsibility to provide acceptable products, nor shall it preclude subsequent rejection by Timken SMO, LLC or its customer(s) subject to final acceptance at its destination.

Where applicable, a quality history for the product shall be provided to Timken SMO, LLC. The quality history shall contain all verification documents generated during manufacturing, processing or fabrication.

1.4 Non-conforming (Discrepant) Product

Non-conforming or discrepant product is defined as: deviation from drawing specifications, purchase order requirements, Timken SMO, LLC product and process specifications or standards and industry product and process specifications and standards, including but not limited to the areas of quantity, appearance, material, packaging, handling, shipping, delivery, cleanliness and dimensions. Counterfeit Parts shall be treated as nonconforming material. When non-conforming product is detected by the supplier after product has shipped, is in transit or delivered to Timken, supplier shall take appropriate action to mitigate the effect including formal, detailed notification to Timken SMO, LLC.

Notification shall include a clear description of the non-conformity, which includes as required: parts affected, part numbers, quantities and dates delivered or in-transit. If required by Timken, supplier shall provide traceability information for lots or batches of material or product.

Non-Conforming Material Notice (NCMN) is used to notify the supplier of non-conformance, discrepancy and/or rejection. The NCMN is sent via e-mail directly to the Supplier contact and can be initiated from any Timken SMO, LLC facility receiving material. A NCMN may be initiated upon detection of non-conforming product. Requests for corrective action may be required from the supplier.

Supplier Responsiveness – Timken SMO, LLC will monitor the timeliness of corrective or preventive actions and may use the supplier's response as input for awarding future business and monitoring performance. Response time requirement is stated on the NCMN.

- An initial response (team/person assigned, problem description, containment action) to an NCMN shall be supplied to Timken SMO, LLC within 3 working days.

If a supplier's product is determined to be defective in material and/or workmanship, as defined by the design requirements, product(s) will be immediately contained.

Timken SMO, LLC and the supplier shall determine if the product can be inspected to remove defects from the "lot" that has been contained.

If time does not allow the supplier's personnel to arrive, the supplier shall provide detailed inspection instructions to Timken SMO, LLC.

Timken SMO, LLC reserves the right to approve all inspection methods.

If it is determined that inspection alone cannot detect the defect, the product(s) will be returned to the supplier or scrapped as agreed upon by the supplier and Timken SMO, LLC.

Timken SMO, LLC may identify any costs incurred from these defective parts and retains the right to initiate a Supplier Cost Recovery Chargeback procedure with the supplier.

If the purchased product is needed for urgent production at a Timken facility, the supplier shall provide a rapid inspection team to Timken's production facility for inspection, or agree (by providing purchase order to the third party) to the use of a third party inspection service with the cost of service being assumed by the supplier.

In most cases, as appropriate, the supplier shall be given the option regarding sorting methodologies by the affected Timken facility.

The use of a third party to sort defective product does not relieve the supplier of their responsibility for the quality or delivery of the product.

Timken SMO, LLC shall have the right to perform any, and all, necessary safe, destructive and non-destructive tests to evaluate fully the performance of the supplier's product or services.

Timken SMO, LLC shall have the right to utilize the service of an independent ISO 17025 accredited testing laboratory. The supplier shall reimburse Timken SMO, LLC for the expense of said tests only if testing confirms the product is not compliant to agreed standard or specification.

Timken SMO, LLC must provide proper accounting of hours for inspection to the supplier.

If the purchased product is determined to be defective or non-conforming for reasons other than those defined on the specification or purchase order, the two parties will discuss and determine if containment action is required.

If containment action is required, inspection criteria will be established. If containment action is not required, the supplier's product will be approved for use in production with a proper record of using the deviation process.

1.5 Management of Design and Process Changes

After product approval, suppliers must agree to notify Timken SMO, LLC of any intended process, product or source change and obtain Timken SMO, LLC approval prior to implementation. Customary changes to the process parameter and additions based on feedstock and environmental variation to maintain adherence to specification need not be reported. Suppliers must also make this a condition of their own entire supply chain. In some cases, samples and documentation will be required as part of the approval process.

Changes are defined as alteration in the product design; product specification; purchased parts; material; manufacturing location; method of manufacturing; processing; testing; storage; packaging; preservation or delivery.

Changes shall be communicated in writing. These include changes to part design, material, sub-tier supplier, manufacturing location or process. When in doubt, suppliers are encouraged to contact their respective Procurement Agent representative.

The supplier shall notify Timken SMO, LLC in advance and obtain approval for all design or process changes affecting the product manufactured, processed or serviced for Timken SMO, LLC.

Changes are classified based upon impact or the most adverse effect, either in the subsequent processing of a part, in its handling, or in its intended or foreseeable application.

The supplier change can be initiated by:

- Timken SMO, LLC Engineering department
- Customer-initiated change communicated to the Timken SMO, LLC-by the customer's engineers or marketing department
- Timken SMO, LLC Purchasing department

The supplier shall submit the request to Timken SMO, LLC for approval to proceed with a defined validation plan. This plan may include or require new **Certificate of Analysis, Production Part Approval Process (PPAP)** submission or **FAI (First Article Inspection)**.

For permanent changes, the Timken SMO, LLC Development Engineer and Purchasing Agent determine if a new Production Part Approval Process is required and advises the supplier accordingly.

Following validation and/or Production Part Approval Process (PPAP) approval, the Supplier Product/Process Change Request is granted or denied and the supplier is advised accordingly.

At this stage, the timing to phase in the approved change is established and communicated to the supplier and all interested parties.

1.6 Purchased Product Submission and Approval Process

Purchased Product Submission and Approval Process is implemented to determine if all design and specification requirements of purchased product are properly understood by Timken SMO, LLC suppliers and to ensure that the supplier production process is capable of meeting Timken SMO, LLC and Timken SMO, LLC customer's technical and quality requirements. The supplier submits required documentation.

The submission requirements may include initial sample(s); dimensional report; material certifications; capability studies.

Unique customer specific requirements are addressed as defined and required.

Timken SMO, LLC requirements related to the initial sample parts and identification include the following:

- Samples must be from production process operating under production conditions unless otherwise negotiated.
- Samples are to be uniquely identified

Suppliers are strongly encouraged to work with their designated Plant Procurement Associate and Engineer to obtain a full approval on time.

Supplier production parts are not to be released for shipment to the Timken SMO, LLC user plant until the supplier receives notification and purchase order from Timken SMO, LLC

1.7 Measurement System Analysis

To fully understand the supplier measurement abilities, as appropriate and defined by the Supplier Quality representative, the supplier may be asked to perform a **measurement system analysis (MSA)** in accordance with the latest version of the **AIAG Measurement System Analysis manual**.

1.8 Purchase for Resale Submission

Requirements

The intent of the sample activity is to test product's ability to meet fit, form, function and performance requirements.

Part approval ensures component part problems are identified and corrected to minimize product variation risk during installation and end use performance.

The following submissions may be required:

- Inspection results and inspection and/or test devices.
- Material certification.
- Part weight (mass)

1.9 Documentation, Certification, and Data Requirements for Proprietary Information

Timken SMO, LLC and its customers may review, in the presence of the supplier and on the supplier premises, documentation that contains confidential and proprietary supplier information pertaining to the product manufactured for Timken SMO, LLC.

Where applicable, a quality history for the entire product shall be provided to Timken SMO, LLC. The quality history shall contain all verification documents generated during fabrication of the product or service.

The supplier shall provide Timken SMO, LLC with appropriate documentation during the course of design, manufacturing, inspection and testing. Non-disclosure agreements will be honored.

All such visits will be negotiated and arranged by Timken SMO, LLC and the supplier in advance.

1.10 Hazardous Materials - Material Safety Data Sheet (SDS)

All materials used in, or incorporated into Timken SMO, LLC products shall satisfy current governmental and safety constraints on restricted, toxic, and hazardous materials; as well as environmental, electrical, and electromagnetic considerations applicable to the country of manufacture and sale. A **Safety Data Sheet (SDS)** must be submitted for all items as defined under applicable regulations. Safety Data Sheet(s) must be submitted to the receiving location.

Safety Data Sheet(s), with full disclosure, must be submitted to the receiving location for approval as soon as possible following the feasibility meeting and/or receipt of a Purchase Order. At the latest, applicable SDS sheets must be provided to the using Timken SMO, LLC plant prior to first shipment / PPAP submission of any component, raw materials, or product.

Approval of each SDS should be obtained as early as possible in the product launch. The Timken SMO, LLC using plant will notify the supplier if the SDS sheets are not acceptable. If SDS information is not submitted, or approval is not obtained, the first shipment submission may not be approved.

Suppliers shall use IMDS (International Material Data System) as required.

1.11 Shipment and Packaging Requirements

Seller shall prepare and submit a Certification of Analysis (COA) to Timken SMO, LLC for each shipment made under a Purchase Order (or each designated item if specific items are designated in the body of the Purchase Order.) The reported values need to fall within specification limits. The Supplier will not ship product that is out of specification without an approved deviation from Timken SMO, LLC

Completion of the Certificate shall not modify or limit any representations, warranties or commitments made or in any way affect the obligation of seller to perform strictly in accordance with the provisions of the Purchase Order.

The following information shall be provided as a minimum: seller's name, quantity of shipment, lot numbers/date codes/serial numbers if applicable, Timken SMO, LLC part number and revision (if applicable), Timken SMO, LLC purchase order number and revision, and a statement that all other applicable requirements as called out by the purchase order, drawings or specifications have been met.

In some cases Timken SMO, LLC designates **'S'-Specifications** to define shipping and packaging requirements.

Requirements in any 'S' specification shall be considered an extension of the purchase order and /or product drawing / agreement, and may consist of:

- Material certifications as specified in all applicable material specifications.
- Applicable **Statistical Process Control (SPC)** data (for all print designated special or critical characteristics) unless instructed differently from the receiving location.
- Labeling, or barcode labeling, must be in accordance with specification

Production shipment and packaging specification requirements shall be finalized prior to first production shipment and /or submission.

1.12 Supply Chain Management

Suppliers must be willing to identify and manage, as appropriate, their entire supply chain. This includes raw material suppliers or manufacturers and any suppliers of components or processing used for products supplied to Timken SMO, LLC.

As appropriate, suppliers shall impose all of Timken SMO, LLC quality requirements on the entire supply chain used to produce the items supplied to Timken SMO, LLC.

1.13 Material Traceability

As required, suppliers shall be able to demonstrate adequate product traceability.

Suppliers to Timken SMO, LLC shall establish and maintain documented methods for unique identification of product, batches or lots, including product marking as necessary for identification or traceability purposes.

Lot numbers must provide traceability from receipt and during all stages of production by the supplier, including shipment to Timken SMO, LLC.

Timken SMO, LLC reserves the right to perform an on-site audit or request appropriate, timely documentation to verify conformance to traceability requirements.

All such visits will be negotiated and arranged by Timken SMO, LLC and the supplier in advance.

Traceability information must include, and begin with an individual raw material number, or equivalent.

1.14 Records

Suppliers shall maintain appropriate records on file according to requirements of the supplier, Timken SMO, LLC or regulatory bodies.

Quality performance records, including control charts, inspection and test results shall be retained for one calendar year after the year in which they were created.

1.15 Supplier Evaluation & Performance

Timken has recognized that certain processes and operations in our supply base required for our products have levels of risk that must be managed appropriately. Timken SMO, LLC has processes to evaluate levels of risk with our supply base. If during the course of business a process or operation has been determined to have an unacceptable level of risk, Timken SMO, LLC will contact supplier directly with specific measures that will need to be implemented to bring the level of risk to a manageable level.

Timken SMO, LLC supplier evaluation process is designed to measure supplier performance over time. The evaluation typically focuses on two performance areas:

- Quality
- Delivery

Specific supplier or supplier locations may be evaluated using only delivery and quality performance as determined by Timken SMO, LLC.

Timken SMO, LLC has an internal Supplier Rating Management System to evaluate supplier on time Certificates of the Analysis and Delivery performance. Both the COA and Delivery each constitute a score of 50 with a total rating of 100 being recorded when both are received on time and the material is within specification.

All Timken SMO, LLC raw material supplier scores are evaluated quarterly. The quarterly score is based on the total sum of scores from each delivery divided by the number of deliveries.

A quarterly score of less than 70 will start an investigation processes to determine if a formal corrective action is required.

Explanations of the performance measures are as follows:

- **Quality** – Product quality demands stringent adherence to purchase, transportation, engineering and packaging specifications – including cleanliness, and consistent, reliable service to assure customer satisfaction.
- **Delivery – On-time delivery (OTD)** is having the correct material in the right quantity at the right place and at mutually agreed upon delivery time and date. The delivery date is considered to be the acknowledged or re-promised date.

Additional requirement: The supplier shall notify, in advance of occurrence, procurement associate or individual listed on the purchase order, of any actual or potential late delivery conditions.

1.16 Supplier Escalation Process

The supplier escalation process is an increased level of activity with a supplier resulting from the supplier's continuing failure to perform in the areas of quality and/or delivery. Escalation may also be initiated when there are noticeable trends that indicate that quality systems may be stressed or deteriorating at a supplier.

Supplier Quality Escalation is the methodology used to define actions, resolve and improve overall supplier performance.

Escalation stages vary up to and include notification to the supplier's registrar of ongoing systemic quality issues or recognition that it may be in the best interests of Timken SMO, LLC and supplier to discontinue doing business.

1.17 Supplier Controlled Shipping (CSI/CSII) if required

The intent of Controlled Shipping is to implement a rigorous process that protects Timken from the receipt of nonconforming parts and/or material.

Level One Controlled Shipping (CSI) – Controlled Shipping is a formal demand by Timken for a supplier to put in place an additional inspection

process to sort for nonconforming material, while implementing root-cause analysis and corrective actions. The Controlled Shipping process is in addition to normal controls. The data obtained from the Controlled Shipping inspection process is critical as both a measure of the effectiveness of the containment process and the corrective actions taken to eliminate the initial nonconformance.

Level Two Controlled Shipping (CSII) - Includes the same processes as Level I Controlled Shipping with an additional inspection process that is completed by a third party. Timken and the supplier will mutually agree upon the third party company and location. The third party company must be minimum certified to ISO 9001.

Based on the severity of issue, Timken SMO, LLC determines whether Level I or Level II would be appropriate

2.0 Supplier Minimum Requirements

2.1 Goal-Setting and Problem Resolution

Timken SMO, LLC and its suppliers strive to achieve excellence in manufacturing.

Best practices are business principles, often identified through benchmarking, that produce better results. Suppliers are strongly encouraged to become familiar with these concepts and become effective practitioners of continual improvement.

Suppliers should be able to determine areas that need correction and improvement:

- Quality results
 - Supplier quality performance indicators - e.g. PPM, number of Discrepant Material Reports, etc.
- Delivery
 - OTD rate
 - Deviation of gross total receipts
 - Supplier-induced expedited shipments

- Cost
 - Price reduction, cost of quality, etc.
- Service and innovation
 - Continual improvement initiative, capacity planning, invoicing problems, responsiveness to change notices, etc.

The supplier should be able to relate all goals to Timken SMO, LLC requirements and priorities.

It is very important to determine the scope of the issues or processes to be studied. The supplier should identify any gaps between current processes and the requirements, determine severity of the gaps, and prioritize its efforts to minimize and eliminate gaps, using a structured, and improvement methodology.

Timken SMO, LLC recognizes the **8D Process** for problem-solving. Especially in the resolution of a nonconforming (discrepant) product.

It is a disciplined eight-step problem-solving process and report format. This technique is applicable also to continual improvement initiatives.

1. Use the team approach

Establish a key group of people with the process/product knowledge, allocate time, authority, and skill in the required technical disciplines to solve the problem and implement corrective actions. The group must have a designated champion.

2. Describe the problem

Specify the internal/external customer problem by identifying in quantifiable terms who, what, when, where, why, how, how many (5W, 2H) for the problem.

3. Implement and verify interim (containment) actions

Define and implement containment actions to isolate the effect of the problem from any internal/external customer until corrective action is implemented. Verify the effectiveness of the containment action

4. Define and verify root causes

Identify all potential causes, which could explain why the problem occurred. Isolate and verify the root cause by testing each potential cause against the problem description and test data. Identify alternative corrective actions to eliminate root cause.

5. Verify corrective actions

Quantitatively confirm that the selected corrective actions will resolve the problem for the customer and will not cause undesirable side effects. Define contingency actions, if necessary based on risk assessment.

6. Implement permanent corrective actions Define and implement the best permanent corrective actions. Choose on-going controls to ensure the root cause is eliminated. Monitor the long-term effects and implement contingency actions if necessary.

7. Prevent recurrence

Modify the management systems, operating systems, practices, and procedures to prevent recurrence of this and all similar problems

8. Read Across

The supplier is strongly encouraged to apply (Read Across) to similar processes, services or products the corrective action, and controls implemented, to eliminate the cause of a potential nonconformance in other areas.

A 3D Report may be requested in lieu of a formal 8D.

2.2 Cost Reduction Policy

Cost reduction is an integral element of the Timken SMO, LLC strategy affecting suppliers. To achieve and improve their competitive position in the market, Timken SMO, LLC and suppliers must implement focused, systematic methods and tools to reduce the costs of products sold.

Cost reduction goals can be achieved in the following ways:

- Cost reductions through the promotion of long-term agreements with suppliers and market analysis benchmarking

- Implementation, after Timken SMO, LLC approval, by suppliers of internal quality improvement programs, value engineering and value analysis methodology.
- Development of supplier joint cost reductions based on a review of both supplier and customer prices, delivery means and business performance measures.

Recommended techniques by that could be used to achieve cost reduction:

- 8D problem solving
- Kaizen philosophy
- Value Analysis/Value Engineering 5-S Principles
- 5-Why Analysis
- Seven Tools of Quality
- Brainstorming
- Benchmarking
- Cross-functional Teams Gap Analysis
- Mistake – Proofing
- VA/NVA value-add/non-value-add (lean)

2.3 Cost Recovery Policy

Timken SMO, LLC, when appropriate, can recover costs associated with a supplier not meeting defined expectations. A Supplier Chargeback process would be negotiated with the supplier.

2.4 Mistake - Proofing

Timken SMO, LLC expectation is zero defects. Achieving this level of quality requires capable processes combined with statistical process control techniques and the utilization of mistake-proofing methodology.

When potential causes of non-conformance are determined, the supplier should employ solutions in the process to prevent or detect these non-conformances. These solutions shall be independent of operator's actions.

Solutions should be designed and installed integral to the process to prevent or detect a wrong setting of an element (e.g. the proper position or inverted), defects in the element, machine, or standard, thereby making further use impossible.

2.5 Statistical Techniques

Suppliers shall monitor process performance using the appropriate statistical techniques.

The supplier shall use statistical techniques such as:

- Gage R&R study
- Predictive maintenance
- Defect analysis
- Sampling and (C=0)
- Process analysis and control charting methods
- Regression analysis - analysis of variance
- Other graphical methods

2.6 Continual Improvement

The supplier should promote and implement a continual improvement philosophy that provides a sustained approach to achieving competitively superior performance in those areas critical to business success by rigorously applying proven methodology and processes.

The Supplier should perform the functions of continual improvement by means of:

- Continual improvement of own actions and distribution of resources.
- Advising the employees of objectives and tasks.
- Providing an environment which encourages open communication.
- Supporting every employee and any process improvement efforts covering all employees with a training system.

Additional recommended tools that assist in the implementation of the continual improvement process are:

- Benchmarking
- Brainstorming
- Pareto Analysis
- 5-Why Analysis
- Affinity

- Diagram
- Involvement Worksheet
- Cost Benefit
- Analysis Cause and Effect Diagrams
- Process Capability/Performance
- Process Mapping

2.7 Environmental, Health & Safety

Suppliers are expected to adhere fully to all applicable governmental laws and regulations to protect the environment and ensure the health, safety and quality of life within their communities.

In addition, Suppliers must adhere to laws and regulations that apply to the health and safety of their workers.

No abnormal or harmful radioactivity levels shall be permitted in any material. No harmful elements or additives shall be permitted that are listed in any EU, ISO, PROP 65, or other government standard banning such materials at the time of shipment to Timken SMO, LLC.

All materials used in product manufacture shall satisfy current government and safety constraints on restricted, toxic and hazardous materials.

Supplier shall notify Timken SMO, LLC if a material in their supplied finished exceeds any threshold on any EU, ISO, PROP 65, or other government standard

Suppliers are required to comply with appropriate restricted or reportable substance notification on PPAP submissions.

Suppliers are encouraged to define, implement and maintain environmental management systems such as ISO 14001:20xx.

Goals of the Supplier environmental management program should be:

- *Commitment to compliance* with all applicable laws, regulations and company policies relating to environmental protection. Pollution to be prevented at its source by minimizing

emissions, effluents, and waste in the design, operation and maintenance of the supplier's facilities. Handling and disposal of toxic substances and hazardous waste must be in compliance.

- *Commitment to prevention* including source reduction, recovery, reusing and recycling. Where feasible, eliminating negative environmental impacts associated with Suppliers operations and products.
- *Commitment to continual improvement* to increase the general awareness of environmental requirements among associates, facilitating an understanding of the environmental implications of their day-to-day responsibilities. Developing the capabilities and support mechanism necessary to achieve the Suppliers environmental policy, objectives and targets.

2.8 Conflict Minerals & Labor

Sourcing of products columbite-tantalite, cassiterite, gold, wolframite, and their derivatives tantalum, tin, and tungsten parts and components from its direct suppliers and sub-suppliers from The Democratic Republic of Congo and adjoining countries as defined by the United States Secretary of State are Prohibited. Timken SMO, LLC will work with its suppliers to seek remedies for non-compliance with this policy.

Timken SMO, LLC prohibits direct suppliers and sub-suppliers use of any child or slave labor.

3D REPORT: The less detailed problem solving approach using 3 of the 8 disciplines.

8D Process: A problem-solving method, especially in the resolution of a nonconforming (discrepant) product.

AIAG: Automotive Industry Action Group

APQP: Advanced Product Quality Planning

Control Item Parts: Products with characteristics normally identified on drawings by an inverted delta (∇) preceding the part and/or raw material code number. Control Item parts may affect compliance with government regulations.

Controlled Shipping (CS1) - Controlled Shipping is a formal demand by Timken SMO, LLC for a supplier to put in place an additional inspection process to sort for nonconforming material, while implementing root-cause analysis and corrective actions.

Controlled Shipping (CSII) - Includes the same processes as Level 1 with an additional inspection process that is completed by a third party.

Counterfeit Parts: Shall mean a part, component, module, or assembly whose origin, material, source of manufacture, performance, or characteristics, are misrepresented. This term includes, but is not limited to (A) parts that have been (re)marked to disguise them or falsely represent the identity of the manufacturer, (B) defective parts and/or surplus material scrapped by the original manufacturer, and (C) previously used parts pulled or reclaimed and provided as new. Counterfeit Parts shall be treated as nonconforming material. The seller and its sub-tiers shall comply with the requirements of AS5553 and or AS6174 current revision as appropriate.. The Seller shall ensure that only new and authentic materials are incorporated unless approved by Timken SMO, LLC.

DISCREPANT: Nonconformance from drawing specifications, purchase order specifications, Timken SMO, LLC Product and Process Specifications and Standards, or Industry Product and Process Specifications and Standards, including but not limited to the areas of quantity, appearance, material, metallurgy, packaging/handling/shipping, and dimension.

FAI: First Article Inspection

IMDS: International Material Data System

ISIR: Initial Sample Inspection Report;

MSA: Measurement System Analysis

NCMN: Non-conforming material notification

Nonconforming or discrepant product: Product does not meet drawing specifications, purchase order requirements, Timken SMO, LLC product and process specifications (or standards), and industry product and process specifications and standards. This includes, but does not limit, the areas of quantity, appearance, material, metallurgy, packaging, handling, shipping, delivery, cleanliness, and dimensions.

OTD: On-time delivery

PPAP: Production Part Approval Process

Product: A result of a process including services (transportation), software, hardware (mechanical part), and processed materials.

Purchased Product Submission and

Approval Process: Process used to determine if all design and specification requirements of purchased product are properly understood by suppliers, and ensures that the supplier production process is capable of meeting Timken SMO, LLC and the Timken SMO, LLC customer's technical and quality requirements.

QA: Quality Assurance Representative

Read Across: Process of reviewing other similar processes, services or products the corrective action, and controls implemented for a defect, to eliminate the cause of a potential nonconformance in other areas.

'S'- Specifications: The Timken SMO, LLC designation defining shipping and packaging requirements.

SPC: Statistical Process Control

Special Characteristics: Product or process requirements for which reasonably anticipated variation is likely to affect a fit, function, or the ability to process or build the product.

Submission Level: Part approval submission as per AIAG-PPAP guidelines.