



PRODUCTION PARTNERS



**ISO 9001:2015**

*Full Service Machine Shop  
Prototypes to Production*



## Quality Management System Manual

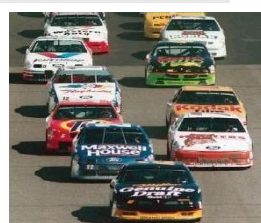
**Phillips Precision, Inc.**

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*Serving a range of industries including  
power/electronics, food/beverage, paper/print, auto/racing, and more.*



***Quality System Manual Revision Index***

<i>Revision</i>	<i>Revision Date</i>	<i>Revision Description</i>
A	01-13-11	Initial Release
B	03-01-16	Release of Section Updates to ISO9001: (E)
C	05-01-17	Release of Section Updates

***“We’ll consult on machineability to save you money and we won’t take the job unless we can hit your deadline!”***

***Steve Phillips, President***

***Phillips Precision***

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## About Phillips Precision, Inc.

Since 1997 Phillips Precision, Inc. has been focused on quality, process improvements and innovation. To optimize business performance, Phillips Precision made the decision to become ISO9001 certified. Owners Steve and Cathy Phillips have a proven reputation in the industry and stay involved with local colleges and technical schools to promote careers in manufacturing. Choose Phillips Precision as your manufacturing partner – from prototypes to production!

Our customers recognize that we are an established, modern, tech-savvy company with longevity so that when they entrust us with their product line, they can be assured that the business relationship will be long-lasting.

We pride ourselves on using technology to serve customers and minimize risk. The latest version of CAD/CAM software, SolidWorks, secure server, high speed internet, and new shop management software all help customer orders move through our company quickly and efficiently. We could be machining parts within minutes of receiving a customer file and deliver finished parts the same day if necessary. Our free consultation service saves you time and money prior to machining.

### Customer Testimonials

*“Congratulations from 1366! We continue to be pleased with the quality, delivery, and overall dependability we see from Phillips. Keep up the great work!” - The Engineering Team at 1366 Technologies*

*“The service you provide is impeccable. The fixtures you design are creative, affordable, and have enhanced the productivity in our inspection department.” Wayne Loomer, Quality Manager, Hologic*

*“I just received the housings you printed in3D and I am speechless—they are so good. I was hoping for prototype quality and this is first class production quality. You are a great resource and consultant on all of my projects. Thank you for your professionalism and attention to detail.” Lenny Pavlitsky, Mechanical Engineer, Gentex Corp.*

[Click here](#) for a video testimonial from Kevin Smith, Project Leader at the Mass Manufacturing Partnership.



### Certifications, Awards, & Affiliations

**ISO 9001: Certification, June 2016**—One of the first machine shops in New England to receive ISO9001:.

**Massachusetts Manufacturing Caucus 2016 Award Winner for Innovation.** Phillips Precision's products division produces an industry-changing metrology fixture solution.

**Excellence in Manufacturing Award** from Worcester Business Journal. Received March 2016

#### Affiliations/Memberships:

AIM (Associated Industries of Massachusetts)

MACWIC (Manufacturing Advancement Ctr Workforce Innovation Collaborative)

Mass-TEC (Massachusetts Technology Education/Eng'g Collaborative)

MassMEP, (Massachusetts Manufacturing Extension Partnership)

SME (Society of Manufacturing Engineers)

AmplUp! (Advanced Manufacturing Program for Massachusetts)

#### Advisory Board Members:

Assabet Valley Technical HS Advanced Manufacturing Program  
Quinsigamond Community College; Advanced Manufacturing Department



### **Facility**

Phillips Precision, Inc.'s 9,000 square foot facility is laid out according to lean principles to create efficient workflow. 5S principles for workplace organization and cleanliness are employed and audited. It's wired with CAT6 cabling, FIOS, and wireless communication and the systems server keeps information secure. The building is climate controlled, energy efficient, and designed to accept solar panels.

### **Our Work**

Phillips Precision, Inc. – specializing in complex prototypes through mid-range production—strives to be the machine shop that engineers and product designers turn to first to satisfy their manufacturing needs. We produce parts quickly and consistently on time, with a high-level of accuracy, and at a fair price. We don't take a job unless we can meet the deadline!

Precision Milling Kiwa 500mm horizontal mill with full 4-axis, six HAAS CNC milling machines include two 4-axis heads plus large plate capacity to 40"x26"x25" along with 2 ½" axis machines. Each machinist programs with the latest MasterCam software with solids and surfacing.

Precision Turning Four CNC turning centers including a PUMA 2600 mill/turn with 12" chuck, 30.7" swing over bed and 24.8" swing over carriage, Daewoo 10" chuck, Daewoo 8" chuck with bar feed capacity 1 7/8", Clausing 15" x 50" open bed, Prototrak lathe 8" chuck, and a Hardinge manual lathe. Each machinist programs with the latest MasterCam software.

Grinding and Honing Phillips Precision regularly grinds and hones high speed steel cutters for the paper industry among many other parts. Specially designed grinding machines, in addition to a Regent 16x32" Surface Grinder, Kirkinda 12x48" Cylindrical grinder, Sunnen Manual Hone and Sunnen Automatic Hone.

3D Printing Prove out your design by printing an ABS prototype to test form, fit and function. We can suggest design changes to your prototype that will help save you money during manufacture. The 6x8" print window isn't limiting. Your model can be printed in sections and securely glued together.

Laser Marking Our 20W fiber laser marking system puts the professional finishing touches on your parts. Add a company logo, part or serial number, bar code or other marking to any part.

Assembly For some customers we manufacture components procure hardware, packaging and write detailed assembly instructions to build complex machines. Simpler assembly jobs may only require welding, attaching fittings, wires, and hardware.

Inspection and Inspection Fixture Design Services include CMM inspection with reporting, surface and hardness testing. We also design inspection and laser marking fixture solutions using Inspection Arsenal™ and Laser Arsenal™ quick-swap fixturing. Learn more at [www.fixture-up.com](http://www.fixture-up.com)!

## Introduction

The implementation of the QMS is intended to improve and sustain the overall performance of our business, and the products that we produce. Examples of the benefits include:

- the ability to consistently provide products that meet customer and applicable Statutory and Regulatory requirements;
- the ability to plan our processes and their interactions by employing the Plan-Do-Check-Act (PDCA) cycle and risk-based thinking in our daily operations;
- the facilitating of opportunities to enhance customer satisfaction;
- addressing risks and opportunities associated with its context and objectives.

The QMS Manual is considered the normative basis of reference to the International Standard and shall be used internally to provide an overview of ISO 9001 requirements and how they apply at Phillips Precision. The QMS Manual is used externally to introduce the elements of our QMS to our customers and other external organizations to the extent necessary.

## Quality Management Principles

Phillips Precision has adopted and realizes the benefits of Quality Management Principles in our daily activities. The intent of the Quality Management Principles provides a foundation to continually improve upon the Company's performance. Subsequent sections of this QMS Manual will describe our commitments of the following QMP elements:

- customer focus;
- leadership;
- communications and the engagement of our people;
- process approach;
- improvement;
- risk & opportunity as well as evidence-based decision making;
- relationship management.

## Process Approach

Phillips Precision has adopted the "Process Approach" in our daily operations including the PDCA Cycle. We have considered the utilization of Risk-Based Thinking Philosophy when developing, implementing, and improving the effectiveness of our Quality Management System. This approach will enable Phillips Precision to enhance the overall performance of the Company by effectively controlling the interrelationships and the interdependencies among the QMS processes. The implementation of the "Process Approach" in our QMS enables;

- the understanding and consistency with achieving customer specific requirements;
- the consideration of our processes in terms of added value;
- the achievement of effective process performance;
- the improvement of our processes based on the evaluation of data and information.

## Risk-Based Thinking

The implementation of risk-based thinking is an essential tool for achieving and maintaining an effective QMS. Phillips Precision effectively plans and implements various actions to address risks and opportunities. Expected outcomes include but are not limited to achieving improved results and preventing negative effects of our products, and QMS.

### 1. Scope

The scope and intent of our QMS is to define and communicate our commitment to continually enhance customer satisfaction through:

- effective process improvements to all systems of the business;
- to assure conformity to our customer's and applicable statutory and regulatory requirements;
- provide policies, procedures developed and implemented with the primary focus to assure the continual compliance of the requirements of the International Standard ISO 9001.

### 2. Normative References

The following documents in part or whole, are normatively referenced or used in the preparation of this document and are indispensable for its application. For dated references, only the edition cited shall apply.

- International Standard ISO 9001 Quality Management Systems Requirements, Quality Management Fundamentals and Vocabulary.

### 3. Terms and Definitions

For the purpose of this document, the terms and definitions provided in ISO 9000 apply.

### 4. Context of the Organization

#### Understanding the Organization and its Context

Phillips Precision management has determined relevant external and internal conditions, issues and items that may become relevant to the Company's purpose and strategic direction, and may affect our ability to achieve the intended results of the QMS. (Reference Process Interrelations and Context of the Organization documents)

#### Understanding Requirements and Expectations of Interested Parties

The effect or potential effect on our organizations ability to consistently provide products that meet our customer and applicable statutory and regulatory requirements, Phillips Precision has determined the following:

- the interested parties relevant to the QMS;
- the requirements of the identified interested parties relevant to the QMS;

Phillips Precision is committed to continually monitoring, reviewing and analyzing information and relevant requirements of the interested parties to assure their requirements are effectively understood and managed in our QMS.



## **Determining the Scope of the Quality Management System**

Phillips Precision has determined the boundaries and the applicability of the QMS and how it relates to our Business Core Competency.

Phillips Precision is committed to applying all applicable requirements of the International Standard to the intent and scope of our QMS.

The Scope of our QMS shall always be made available to internal and external parties and will be maintained as documented information. The QMS was determined, designed and implemented to embrace and support:

- Full Service CNC Machining and Assembly

**Exclusion of the QMS** (section 8.3) Design and Development of Products and Services.

**Justification** Phillips Precision does not perform design activities therefore the fulfillment to the requirements of this section are not applicable to our QMS. Phillips Precision verifies the output of our customers design through measurements, fit checks, and visual inspections of the machined and/or assembled product(s) to the customer drawings, specifications and quality requirements.

## **Quality Management System and its Processes**

Phillips Precision has established, documented and implemented our Quality Management System (QMS) in accordance with the requirements of ISO 9001. The QMS is maintained and continually improved through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive action and management review. Phillips Precision utilizes Quality System Procedures (QSP) to provide our employees and external providers including our vendors when applicable, with detailed “How To” instructions and requirements. The documents support the achievement of quality compliance for each of the process steps. We retain Quality System Forms (QSF) which provides documented information substantiating the process inputs and outputs have been accomplished as required and planned.

## **5. Leadership**

### **Leadership and Commitment**

Management, Business Manager and President are actively involved in implementing the QMS and are accountable for its overall effectiveness, direction, improvements and sustainability. Management provides direction to the integration of the QMS requirements into each business process of the organization and is committed to promoting the use of the Process Approach and Risk-Based Thinking, as well as the engagement and motivation of our employees throughout our QMS.

### **Customer Focus**

Phillips Precision ensures customer requirements and expectations are clearly defined, understood and achieved at all levels of the organization. We are committed to achieving 100% customer satisfaction and will accomplish this by understanding and mitigating risks and opportunities that may affect the conformity of manufactured

and provided products and to assure Statutory and Regulatory requirements are identified and achieved according to the applicable Clauses of the QMS Manual, Quality System Procedures and Quality System Forms.

### **Establishing and Communicating the Quality Policy**

The President and Business Manager have initiated and communicated the Quality Policy throughout the organization and make it available to relevant interested parties as appropriate. The Quality Policy is appropriate to the purpose and context of the Company and supports its strategic direction. The Quality Policy provides the framework for setting quality objectives, satisfying applicable requirements and supports the Company's commitment for continual improvement of the QMS.

### **Quality Policy**

As a team we work to ensure high quality parts are delivered to customers on-time, every time. We minimize risk to customers through good communication and continuous improvement of processes, technology, and talent.

### **Organizational Roles, Responsibilities and Authorities**

The Organization Chart has been established to provide the interrelation and reporting structure of personnel within the organization. The Business Manager has been appointed by the President to oversee and manage the overall effectiveness and compliance of the QMS. The Business Manager has the following responsibility and authority to:

- ensure QMS conforms to the requirements of international standard ISO 9001;
- ensure interaction of processes and their ability to achieve planned results;
- report to top management on the results achieved by the QMS, possibilities for improvements and the needs of changes or innovations;
- maintain QMS integrity when planning and implementing changes;
- promote awareness of customer focus throughout the organization;
- act as a liaison with external parties such as customers or auditors on matters relating to the QMS;
- resolve all matters pertaining to quality issues.

The Business Manager has the organizational freedom and unrestricted access to resolve matters pertaining to Quality Management System as well as to be the Company liaison with external parties, including our customers and vendors on all matters relating to the QMS. (Reference Phillips Precision Organization Chart)

## **6. Planning**

### **Actions to Address Risks and Opportunities**

When planning our QMS, Phillips Precision has taken into consideration potential issues and has determined the risks and opportunities that need to be addressed to:

- provide assurance that the QMS can achieve its intended result;
- enhance desirable effects;
- prevent, or reduce, undesired effects;
- achieve improvement;

Phillips Precision has planned actions to address the above risks and opportunities and has initiated appropriate procedures to integrate and implement appropriate actions into our QMS including the evaluation of the effectiveness our QMS processes. Any actions taken to address risks and opportunities shall be proportionate to the potential impact on the conformity of products and services.

### **Quality Objectives, Performance and Planning to Achieve Them**

Quality Objectives have been established at appropriate areas and levels of the Company. Key Performance Indicators (KPI) and applicable plans to achieve them have been initiated and implemented with intent to support the quality policy, meet and exceed requirements for product and processes, and to continually improve the QMS and its performance.

#### **Quality Objectives:**

Quality objectives are strategic, apply to the entire Company and shall:

- be consistent with the Quality Policy;
- be measurable and monitored;
- take into account applicable requirements;
- be communicated;
- be updated as appropriate;
- be relevant to conformity of products, services and enhance customer satisfaction.

#### **Quality Performance Objectives – Key Performance Indicators (KPI)**

Quality Performance Objectives (QPO and/or Key Performance Indicators (KPI)) are measurable strategic business goals which have been initiated to improve operational performance and to ensure customer satisfaction. They have been established by management and are implemented through employee involvement. The results and required actions are communicated to the organization and are reported and monitored within the framework of our Management Review Process. (See last page for related Reference Documents)

Phillips Precision retains documented information on the status of our quality objectives. If shortfalls are identified, management may revise objectives, issue corrective action requests, or take other appropriate actions to address the issue.

#### **Planning of Changes**

When changes to the QMS are deemed necessary, Phillips Precision shall ensure the change will comply with the requirements of ISO 9001 and shall consider the following. (Refer to last page for Related Documents)

- the purpose of the changes and their potential consequences;
- the integrity of QMS;
- the availability of resources;
- and allocation or reallocation of responsibilities and authorities.

## **7. Support**

Phillips Precision is fully committed to providing adequate resources required for the establishment, implementation, maintenance and continual improvement of our QMS. Our committed resources include: competent employees, state of the industry equipment, well maintained work environment and financial resources. The process for determining and communicating resource requirements is an integral part of our management review process. Our infrastructure resource considerations include:

- management review meeting inputs and outputs;
- capabilities and constraints on existing internal and external resources;
- requirements and expectations provided by our external providers/vendors

### **People**

Phillips Precision identifies personnel training needs, provides required training, and evaluates the effectiveness of the training provided. Personnel assigned to perform specific tasks, operations and processes are qualified on the basis of appropriate education, experience or training. Employees are made aware of the relevance and importance of their activities and how they contribute to the achievement of quality objectives. Personnel competency, qualifications and training are maintained.

### **Infrastructure**

Phillips Precision has determined and provided resources necessary for the establishment, implementation, maintenance and continual improvement of the QMS. Our infrastructure resource considerations include:

- buildings, workspace and associated utilities;
- equipment including (hardware and software);
- transportation resources;
- information and communication technology.

As new infrastructure requirements become necessary, they will be documented in quality plans and other documents as required.

### **Environment for the Operation of Processes**

Management identifies and manages the human and physical factors of the work environment considered to be important to control processes and to achieve conforming of products. Evaluations include the following.

- social (e.g. non-discriminatory, calm, and non-confrontational)
- psychological (e.g. stress-reducing, burnout prevention, emotionally protective)
- physical (e.g. temperature, heat, humidity, light, airflow, hygiene, noise)

These factors can differ substantially depending on the products and services being provided.

### **Monitoring and Measuring Resources**

Phillips Precision has determined the necessary monitoring, measurement and resources to be initiated across our QMS. The structure of internal resources includes but is not limited to:

- monitoring and measuring equipment;
- documented procedures and forms;
- competent and qualified personnel

### **Measurement Traceability**

Documented procedures outline the processes that control monitoring and measurement equipment used to accept products during production operations. The procedures also include controls prior to, and after delivery of products to our customers. Appropriate documented information is maintained and provides objective evidence of compliance and conformity.

### **Organizational Knowledge**

Phillips Precision considers the specific knowledge necessary for each operation and considers this as an important resource to ensure our people and processes are consistent and will achieve conformity of the products provided by the Company. Specific organizational knowledge is defined, maintained and available to the extent necessary within appropriate procedures.

### **Competence**

Phillips Precision has determined to the extent necessary the following elements of competence for people performing work that may affect the effectiveness of the QMS.

- ensure employees are competent on the basis of their education, training and experience;
- initiate job descriptions including specific competency provisions;
- measure job performance for each employee;
- provide job and career training programs to the extent necessary;
- take actions when necessary to assist employees that exhibit less than desirable results.

### **Awareness**

Phillips Precision has determined to the extent necessary, employees performing work will be:

- aware of the Quality Policy;
- aware of relevant quality objectives and key performance indicators;
- aware of their contribution to the QMS effectiveness, including improved performance;
- aware of implications of noncompliance to our QMS requirements.

### **Communication**

Phillips Precision management has determined internal and external communications relevant to QMS, including the subject of the communication, when communication occurs, participant and ways of effective communication.

### **Documented Information**

Phillips Precision maintains a documented QMS as a means to ensure that products conform to specified requirements. The QMS consists of the following three levels of documented information:

#### **Level 1 Quality Manual:**

Provides the scope of the QMS and the applicable ISO 9001; clauses contained within and supported.

### **Level II Quality System Procedures (QSP):**

Provides detailed requirements for each of our processes with the intent to specify who does what, when, where, how the process or action/task is performed, and what documentation is used to verify that all required quality related activities had been executed as required. (Refer to last page for Related Documents)

### **Level III: Quality System Forms (QSF):**

Provide objective evidence that required product quality and customer requirements were achieved, and that the Company's QMS has been implemented as stated. QSF refers to tags, labels, stickers, preprinted sheets, stamps, and other means to identify the status of materials, products, equipment, gauges, and other devices used in the company to achieve the specified requirements.

### **Creating and Updating**

When creating and updating documented information, Phillips Precision ensures the following.

- the identification and description (revision date, approval etc.);
- the format and media (electronic, paper hard copy etc.);
- the review and approval for suitability and adequacy.

### **Control of Documented Information**

Documented information required to support the effectiveness of our QMS is controlled to ensure:

- it is available and suitable for use, where and when it is needed;
- it is adequately protected from loss of confidentiality, improper use, or loss of integrity.
- distribution, access, retrieval and use;
- storage and preservation, including preservation of legibility;
- control of changes;
- retention and disposition.

Documented information of external origin determined to be necessary for the planning and implementation of the QMS is identified as appropriate and controlled in accordance with Quality System Procedures and Quality System Forms.

## **8. Operation**

### **Operational Planning and Control**

Phillips Precision defines the expectation and implements controls for each of our processes to ensure consistent acceptability of products. Planning processes include the definition of quality objectives, key performance indicators, development for required processes, the establishment for appropriate verification programs and the requirement for records necessary to demonstrate the process and products conform to intended requirements. Operational planning and control is required prior to new and/or revised products or processes being implemented. During the planning phase, management will identify:

- requirements for the products;

- criteria for the processes and the acceptance of products;
- resources needed to achieve conformity to the product requirements;
- control of the processes in accordance with the criteria;
- documented information to the extent necessary to have confidence that the processes have been carried out as planned and to demonstrate the conformity of products to their requirements.

The output of operational planning and control includes documented quality plans, resource requirements, processes, equipment requirements, procedures and test and inspection information.

### **Customer Communication**

Phillips Precision has implemented an effective system for communicating with customers. The system includes but is not limited to:

- information relating to product information;
- inquiries, contracts and order handling, including amendments;
- customer feedback, including customer complaints;
- handling or controlling customer property;
- specific requirements for contingency actions, when relevant.

### **Determination of Requirements Related to Products and Services**

Phillips Precision requires that all customer specific requirements for products are clearly defined by the customer including and not limited to:

- applicable statutory and regulatory requirements;
- requirements considered necessary by Phillips Precision;
- acceptance that Phillips Precision can produce and deliver the customer expectations.

### **Review of Requirements Related to Products and Services**

Phillips Precision ensures we have the ability to meet the requirements for products being offered to our customers. Management conducts a contract/product review prior to committing to supply products to our customers. The review process at a minimum includes:

- requirements specified by the customer, including the requirements for delivery and post-delivery activities;
- requirements not stated by the customer, but necessary for the intended use, when known;
- requirements specified by the organization;
- statutory and regulatory requirements applicable to the products;
- contract or order requirements differing from those previously expressed.

Phillips Precision ensures contracts, purchase orders or other requirements differing from those previously defined, are reviewed and approved prior to incorporating into our business systems. We retain applicable documented information of the initial review and on any new/revised customer or applicable external party requirements for the products being provided.

### **Changes to Requirements for Products and Services**

Phillips Precision ensures that relevant documented information is amended, and that relevant persons are made aware of the changed requirements, when the requirements for products are changed.

### **Control of Externally Provided Processes, Products and Services**

Phillips Precision maintains responsibility for the quality of all products purchased from external providers, including customer designated sources. Procedures ensure products and services being provided by external sources will conform to our customers' requirements. Examples of our controls include:

- continual review of external provider's performance.

### **Type and Extent of Control of External Provision**

Phillips Precision ensures that externally provided processes, products and services do not adversely affect our ability to consistently deliver conforming products to our customers. Vendors demonstrating inadequate performance will be required to implement corrective actions. Poor performing vendors will be replaced.

### **Information for External Providers**

Phillips Precision uses purchase orders to define the product or services to be purchased. Purchase Orders are created in the company E2System, by designated individuals within the Company. Purchasing documents are reviewed for adequacy and approved prior to release. Purchasing documents clearly describe the materials, product or service to be provided.

### **Production and Service Provision**

#### **Control of Production and Service Provision**

Phillips Precision plans and implements manufacturing operations under controlled conditions as required by job specifics. Examples of the controls include:

- availability of information that define characteristics and results to be achieved;
- availability of competent and effectively trained personnel and adequate equipment;
- availability and use of suitable monitoring and measuring devices and resources;
- evidence that all manufacturing and inspection operations have been completed as planned;

Manufacturing procedures, job travelers, inspection plans, and other documents deemed necessary, define the acceptance for manufacturing operations. The plans provide detailed instruction and guidance for all production and service phases including the methods and equipment to be used and workmanship criteria. Records for each job number of product produced provide unique traceability and identify the quantity manufactured and released for delivery. The records are maintained as required by customer contract requirements.

#### **Identification and Traceability**

Phillips Precision identifies parts and products by suitable means throughout production. Marking methods will be described in the applicable operations procedures for affected departments. Where traceability is a requirement, the Company controls and records the unique identification of the outputs. According to the level of traceability required by contract, regulatory or other established requirement, our procedures provides for:



- identification to be maintained throughout the processes including delivery and post-delivery;
- identification of sub-components and those of the next higher assembly;

### **Property Belonging to Customers or External Providers**

Phillips Precision exercises care with property belonging to customers or external providers while it is under our control or being used. Procedures are established for the control, storage, maintenance and accounting of Customer/Government furnished materials, tooling and equipment including data used for design, production and/or inspection provided to the Company for the performance of work under a specific contract or contracts.

### **Preservation**

Phillips Precision preserves the conformity of parts and products during internal processing and delivery to the intended destination including outside services. Procedures include instructions for identification, handling, packaging, storage and protection. Preservation of outputs also include, where applicable:

- cleaning;
- prevention, detection and removal of foreign objects;
- special handling for sensitive outputs;
- marking and labeling including safety warnings;
- special handling for hazardous materials.

The shipping department ensures that documents required by the contract/order to accompany the product are present at delivery and are protected against loss and deterioration.

### **Post-Delivery Activities**

Phillips Precision maintains documented information of all products delivered to our customers. The extent of post-delivery activities includes consideration of our customer's requirements and received feedback.

### **Control of Changes**

Phillips Precision shall review and control changes for production operations to the extent necessary, to ensure continuing conformity of customer or internal requirements. Changes for production may be initiated as a result of:

- modernization based on the context of the organization analysis results;
- needs of interested parties, or customer feedback ;
- manufacturing department when vulnerability is detected and (or) opportunities for improvement are identified.

Management continually reviews and monitors changes that affect production or outside services and ensures change documentation and information is distributed and controlled. Records of results of the review of changes, the persons authorizing the change, and any necessary actions arising from the review are maintained in accordance with applicable procedures.

### **Release of Products and Services**

Phillips Precision monitors and measures characteristics of the product in receiving inspection, in-process inspection, and final inspection to verify that requirements have been met. Documented procedures have been established for product inspection. Documented records and information of inspections include evidence of

conformity with the acceptance criteria and traceability to the person authorizing the release. Records of inspection are maintained.

### **Control of Nonconforming Process Outputs, Products and Services**

Phillips Precision ensures that products that do not conform to established requirements are identified and controlled to prevent their unintended use or delivery. Phillips Precision shall take the appropriate action based on the nature of the nonconformity and its effect on the conformity of products and services. This shall also apply to nonconforming products and services detected after delivery of products, during or after the provision of services.

The organization shall deal with nonconforming outputs in one or more of the following ways:

- correction
- segregation, containment, return or suspension of provision of products and services;
- informing the customer;
- obtaining authorization for acceptance under concession.

Conformity to the requirements shall be verified when nonconforming outputs are corrected.

Phillips Precision shall retain documented information that:

- describes the nonconformity;
- describes the actions taken;
- describes any concessions obtained;
- identifies the authority deciding the action in the respect of the nonconformity.

When nonconforming product is corrected, it is re-inspected to the original specifications and requirements to ensure it conforms to customer stated requirements. When nonconforming product is detected after delivery, Phillips Precision will take action appropriate to the effects or potential effects of the nonconformity. (Refer to last page for Related Documents)

## **9. Performance Evaluation**

### **Monitoring, Measurement, Analysis and Evaluation**

The objectives of monitoring, measurement, analysis and evaluation are: process criteria, product characteristics, performance and effectiveness of the QMS. Results from monitoring and measurement are evaluated. Informational reports are presented to management for general review and making decision on opportunities for improvement.

### **Customer Satisfaction**

Phillips Precision monitors information relating to customer perception of our commitments and on-going ability to fulfill their requirements. Maintaining customer satisfaction is one of the primary objectives of our QMS. Collecting and analyzing customer feedback and complaints, and customer satisfaction is conducted during management review. Customer satisfaction information is used by management to identify opportunities for improvement.

### **Analysis and Evaluation**

Phillips Precision performs necessary analyses and evaluates appropriate data and information initiated from monitoring and measurement. Management utilizes the results to evaluate conformity of products, customer satisfaction, the performance and effectiveness and any improvement required of the QMS.

### **Internal Audit**

Phillips Precision plans and conducts internal audits at planned intervals. Internal audits are conducted to verify activities and related results comply with expectations including customer contractual requirements and other QMS requirements. The Business Manager is responsible for organizing and coordinating the internal audit to ensure that the audit scope, the frequency and methods are defined, and the following requirements are satisfactorily achieved:

- definition of audit responsibilities;
- definition of requirements for planning and conducting the audit including taking appropriate correction and corrective actions without undue delay;
- assurance of auditor independence;
- recording of audit results;
- communication of audit results to management;

### **Management Review**

Phillips Precision shall review the organization's quality management system, at planned intervals, to ensure its continuing suitability, adequacy, effectiveness and alignment with the strategic direction of the organization.

### **Management Review Inputs:**

The management review shall be planned and carried out taking into consideration the following.

- the status of actions from previous management reviews;
- changes in external and internal issues that are relevant to the quality management system;
- information on the performance and effectiveness of the quality management system, including trends
  - customer satisfaction and feedback from relevant interested parties;
  - the extent to which quality objectives have been met;
  - process performance and conformity of products and services;
  - nonconformities and corrective actions;
  - monitoring and measurement results;
  - audit results;
  - the performance of external providers;
- the adequacy of resources;
- the effectiveness of actions taken to address risks and opportunities;
- opportunities for improvement.

## **Management Review Outputs:**

Management Review Outputs include decisions and actions related to the following:

- opportunities for improvement;
- changes needed to the QMS;
- resources needed.

Management Review Meeting documents and information is retained as required by applicable procedures. (Refer to last page of QMS for Related Documents).

## **10. Improvement**

Phillips Precision determines and selects opportunities for improvement and implements necessary actions to meet customer requirements and enhance customer satisfaction. Examples:

- improving processes and products to ensure they consistently meet requirements as well as to address future needs and expectations;
- correcting, preventing or reducing undesired effects;
- improving the performance and effectiveness of the QMS.

## **Nonconformity and Corrective Action**

When nonconformity occurs, including any arising from complaints, Phillips Precision shall:

- take action to control and correct it and then deal with the consequences;
- evaluate the need for action to eliminate the cause(s) of the nonconformity, in order that it does not recur or elsewhere by reviewing and analyzing the nonconformity, determining the causes of the nonconformity, and determining if similar nonconformities exist, or could potentially occur;
- implement any action needed;
- review the effectiveness of any corrective action taken;
- update risks and opportunities determined during planning, and if necessary;
- make changes to the quality management system, if necessary.

Corrective actions shall be appropriate to the effects of the nonconformities encountered.

Phillips Precision shall retain documented information as evidence of:

- the nature of the nonconformities and any subsequent actions take;
- the results of any corrective action.

## **Continual Improvement**

Phillips Precision initiates actions to continually improve the suitability, adequacy and effectiveness of the QMS. Continual improvement techniques and processes are applied to areas of the business that have an impact on the quality of our processes and products. We analyze and take necessary actions on results of improvement projects as well as from the Management Review outputs.

## Related Documents

<b>Document Title</b>	<b>Document #</b>	<b>Effective Date</b>	<b>Revision Level</b>
<b>QMS PROCEDURES</b>			
Quality Policy Statement			C
QMS Manual	L1	May 10, 2017	C
Context of the Organization	QSP-01	May 23, 2017	C
Control of Documents & Information	QSP-02	May 10, 2017	C
Calibration	QSP-03	May 24, 2017	C
Control of Nonconformances + ECN	QSP-04	May 24, 2017	C
Purchasing & Vendors	QSP-05	May 24, 2017	C
Contract Review	QSP-06	May 25, 2017	B
Internal Audit	QSP-07	May 25, 2017	C
Management Review	QSP-08	May 25, 2017	C
<b>QMS FORMS</b>			
QMS Document Control Master List	QSF-01	June 2, 2017	C
Document Retention Master List	QSF-02	May 25, 2017	C
Context of the Organization Worksheet	QSF-03	May 25, 2017	C
Employee Skills Matrix	QSF-04	May 25, 2017	C
Employee Cross-Training Form	QSF-05	May 25, 2017	A
Management Review Agenda	QSF-06	May 25, 2017	C
Vendor Evaluation Questionnaire	QSF-07	May 10, 2017	C
Engineering Change Notice	QSF-08	May 30, 2017	D
Preventive Maintenance Record	QSF-09	May 25, 2017	A
Corrective Action Request (CAR)	QSF-10	May 25, 2017	D
Corrective Action Request Log	QSF-11	May 25, 2017	D
Internal Audit Plan	QSF-12	May 25, 2017	B
Internal Audit Report	QSF-13	May 25, 2017	B
Internal Audit Log	QSF-14	May 25, 2017	C
Continuous Improvement Log	QSF-15	May 25, 2017	A
5S Audit Checklist	QSF-16	May 10, 2017	C