# H.T.G s.a.r.l



# **QUALITY MANUAL**

# In conformance with: ISO 9001: 2008 Standard

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#### 1. GENERAL INFORMATION

#### 1.1. Scope

This document has been prepared in order to identify the quality management system implemented at **H.T.G**. The manual also identifies and explains the requirements for achieving customer satisfaction by providing confirming products and customers' requirements through proper application of the system and the constant improvement.

# 1.2. Domain of application

This document covers **H.T.G's** activities inMekalles - Lebanon. It applies to all the productsand services while satisfying the requirements and intent of ISO 9001:2008.

# 1.3. Reduced scope and tailoring

**H.T.G** satisfies the full requirements of ISO 9001:2008 with the exception of 7.5.2.

#### 1.4. Reference documents

ISO 9001:2008

#### 1.5. Definitions and abbreviations

The terms and definitions of the ISO 9001:2008apply in this manual and the abbreviations are explained separately in each procedure.

#### 1.6. Edition

This manual can be subject to updates during management reviews in order to ensure continuous improvement of the system. Process owners and management members can propose modifications wherever seen possible. The approved modification will be given a new edition number and will be mentioned under the "Modifications" section.

#### 1.7. Diffusion

This quality manual is handed out to every responsible in the company as a controlled copy according to a diffusion matrix. Other "uncontrolled copies" of the quality manual can be issued for specific needs. Uncontrolled copies are not updated systematically according to documents and data control procedure.

# 1.8. Approbation

This manual is edited by:

Name	Title	Date	Signature
Mr.NajiHosry	Assistant Quality Manager	11/10/2012	

#### Verified by:

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Name	Title	Date	Signature
Mrs. JaklineKallas	Quality Manager	11/10/2012	

Approved by:

Name	Title	Date	Signature
Mr. Ibrahim Maalouf	General Manager	11/10/2012	

# 2. COMPANY PRESENTATION

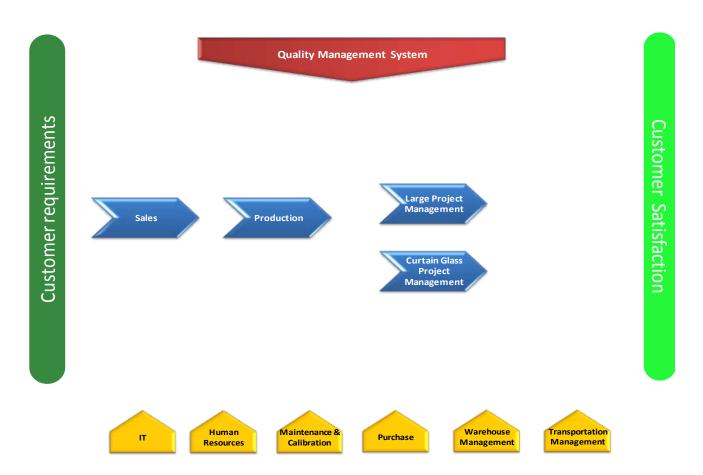
Horizontal Tempering Glass (HTG), once founded in 1995, succeeded in grasping the opportunity present at that time with the development of the architectural requirements and the prospects of growth while combining the both expertise and technological development of our machinery. This gave us the edge in providing the market the suitable high end products and services required.

Furthermore, and in 2008, **H.T.G** found the chance of becoming the only certified glass processor (for international glass companies such as Saint Gobain) as an important step ahead and has been improving in quality ever since.

# 3. PROCESS MAP & INTERACTION MATRIX

The processesat **H.T.G** are composed of:

- a) Management processes: Include Quality Management
- b) Operational processes: Sales, Large Project Management, Production and Curtain Glass Project Management
- c) Support processes: Human Resources, Purchase, Transportation Management, Maintenance& Calibration, Warehouse Management and Information Technology (IT)



#### 4. QUALITY MANAGEMENT SYSTEM

#### 4.1. General requirements

**H.T.G**has established, documented, implemented and maintains a quality management system based on ISO 9001-2008.

The effectiveness of the quality management system is continuously improved through strict adherence to the criteria defined in this quality manual. The success of the continual improvement program (8.5.1) is monitored through a comprehensive management review and through the data analysis performed in accordance with Clause 8.4.

- **H.T.G**has identified and documented processes so that they are clearly understood and can be easily applied, managed and improved. The sequence and interactions of these processes are described in this quality manual, quality process data sheets and procedures. The criteria and methods required for the effective operation and control of these processes have also been determined.
- **H.T.G**ensures the necessary resources and database are available to support the operation and monitor the processes. The processes are monitored, measured and analysed to determine the actions needed to achieve the planned results and for the continuous improvement.
- **H.T.G**may need some "outsourced processes" for the quality management system. However, **HTG** finds that it is necessary to identify product conformity with those requirements. Moreover, the outsourced process is managed and controlled through the Purchasing department and other specific procedures if needed (see Clause 5.4.2).

However, these outsourced processes do not absolve the organization of the responsibility of conformity to all customers' statutory and regulatory requirements. The type and extent of control to be applied to the outsourced process can be influenced by factors such as:

- a) The potential impact of the outsourced process on the organization's capability to provide product that conforms to requirements
- b) The degree to which the control for the process is shared
- c) The capability of achieving the necessary control through the application of 7.4

# 4.2. General documentation requirements

#### 4.2.1. **General**

The **H.T.G** quality management system includes the processes, the procedures, the instructions and recordsrequired by ISO 9001:2008, all of which are considered necessary to ensure the effective operation and control of the company's processes.

The quality management system documentation also includes this quality manual, statements of the quality policy, quality plans, specifications, processes, procedures, instructions, forms and other documents. A single document may address the requirements for one or more procedures. A requirement for a documented procedure may be covered by more than one document.

The extent and nature of the process documentation is based on the complexity and interaction of the processes as well as the competence of **H.T.G** personnel. Top management reviews contractual requirements, applicable standards and relevant statutory and legal regulations to ensure the necessary documentation is in place.

# 4.2.2. Quality manual

The sequence and interaction of the processes within the quality management system are described in these quality manual and referenced documents. Implementation of these processes ensures that **H.T.G** consistently meets the quality and performance requirements of customers in a timely and cost-effective manner. (See Annex 1 – Process Interaction Matrix)

#### 4.2.3. Control of documents

Every document is subject to revision and approval prior to the implementation period. Those documents are also updated when necessary and then reapproved before submission.

The documents are printed to ensure they are legible.

All controlled documents contain sufficient information to ensure they are readily identifiable, such as title, number (if applicable), date and when applicable, revision level. Obsolete documents are removed from the place of use and either destroyed or marked obsolete in order to preclude their inadvertent use. Applicable documents of external origin are identified and recorded.

The authorized functions and the rules governing the issue of documents are defined in the control of documents procedure (QM-PR-01).

# 4.2.4. Control of quality records

Records required for the quality management system are established, maintained, and controlled as evidence of conformance to requirements and of effective operation of the quality management system.

HTG has established a documented procedure (QM-PR-02) to define the controls needed for the identification, storage, protection, retrieval, retention and disposition of records. Records are analysed to provide input to corrective and preventive actions as well as to manage and improve the quality management system and to identify prospects for continual improvement.

Each process owner is responsible for ensuring that required work has been carried out and that it can be substantiated through appropriate records. These records demonstrate compliance with customer requirements as well as ISO 9001:2008.

# 5. MANAGEMENT RESPONSIBILITY

#### 5.1. Management commitment

The top management is ultimately responsible for establishing, implementing, maintaining, and improving the quality system. Management commitment is demonstrated by communicating to the organization the importance of meeting requirements, establishing the quality policy and quality objectives, conducting management reviews of the quality system, and ensuring the availability of necessary resources.

For the purpose of administrating the quality management system, top management is defined to include the General Manager and managers responsible for operations, engineering, marketing, sales, human resources, and quality management.

Top management is committed to communicate the importance of meeting customer as well as regulatory and legal requirements. Management representative is responsible for implementing this commitment by promoting awareness of customer requirements throughout the organization. This responsibility of management representative is stipulated in Section 5.5, Organization and Communication.

Top management defines the purpose and objectives for the quality management system. They are documented and communicated in the form of quality policy and quality objectives. Processes for establishing the quality policy and quality objectives are defined in this manual in Section 5.3, Quality Policy, and Section 5.4, Quality System Planning.

Top management periodically reviews the quality management system to ensure its continuing suitability, adequacy, and effectiveness. The review evaluates current status and performance of the quality system and initiates actions for further improvement of the system. The process for conducting management reviews is defined in Section 5.6 of this manual and in the instruction (QM-IN-01), Management Review.

Top management is committed to providing resources necessary for establishing, implementing, and improving the quality management system. Section 6.1 of this manual defines processes for identifying resource requirements and allocation of resources for specific activities and projects.

# 5.2. Customer focus

Customer requirements are understood broadly to include all aspects of products and associated services that can influence customer satisfaction. When relevant, this may also include customer needs and expectations.

Customer requirements are determined and verified through the sales process. This process is defined in the Sales Process Datasheet (SA-PRO-01).

When appropriate, customer needs and expectations are determined and are incorporated into product requirements. Information about customer needs and expectations is collected and developed from various sources. These include:

- Trends in stated customer requirements and developments in pertinent legal and regulatory requirements;
- Customer surveys and direct contacts with customers;
- Expressions of customer satisfaction and dissatisfaction, including customer complaints, and other customer feedback;
- Trade magazines, conferences, seminars, etc.; and
- Benchmarking against competitive products.

Information about customer needs and expectations is also extracted from customer feedback and complaints, and customer satisfaction data. Handling Customer Complaints Procedure (QM-PR-04), and Corrective and Preventive Actions(QM-PR-03), define how this data is collected and used.

The whole quality system is designed and implemented to ensure that customer requirements can be consistently fulfilled. Quality system processes that most directly contribute to achieving this objective are those related to the control of product realization processes and to monitoring and measuring of product. Sections 7 and 8 of this manual define these processes.

# 5.3. Quality policy

The established policy of **H**. **T**. **G**. is to provide our customers with products and services that satisfy their needs and expectations in terms of quality, service price and delivered in conformance with the company's quality specifications or as required by the customer.

Throughout the continuous improvement of our products and processes, we aim to deliver to our customers' products and services with zero defects fit for use matching the quality standards set by our management.

**H.T.G.**commits itself to continuous improvement, further expanding and increasing its competitive leadership in quality, cost and services in a joint partnership with their shareholders, employees, suppliers and customers.

The company's quality system is in accordance with the requirements of ISO9001:2008(expected certification date October 2012) and is considered to be the minimum standard set to be achieved by the company to ensure that the requirements of our customers are adhered to in all respects.

The quality procedures are mandatory and no deviations or alternatives are permitted. All the company's employees, whether directly involved with product quality or not, must comply with them and work through the policy set.

The Quality Department has been given the responsibility and authority to ensure that this policy is established, enacted correctly, implemented and that the quality system is periodically reviewed to improve its suitability and effectiveness.

It is our belief that a quality conscious company will build on its own reputation: therefore, a program of controlled quality is operated from day one that is receiving quality sensitive materials, all through the process in production till the final phase of dispatching the goods to our customers.

Each employee is made aware, and through continuous extensive training, of the need to improve performance and workmanship wherever and whenever possible in order to produce and provide the best quality products and services. This is reflected in job descriptions and operating procedures in addition to the support and encouragement given by immediate superiors.

In the End of the day, our policy and processes are reduced into one simple sentence:

"A satisfied customer is the best business strategy of all"

Mr. Ibrahim Maalouf General Manager

27/03/2012

Quality policy is established and approved by the top management. The main role of the quality policy is to communicate the company's commitments and aspirations with regard to quality, and to define principal objectives for the quality management system.

The quality policy provides a framework for establishing specific quality objectives, and provides direction for the continual improvement effort. The use of quality policy in setting quality objectives is addressed in this manual in Section 5.4, Quality Planning.

The quality policy is posted throughout the company, and its role is explained and discussed at the general orientation training provided to all employees. The quality policy is also communicated to customers and other interested parties. For this purpose, it is displayed in the reception area,in each office,in the conference room and posted on the company's internet site.

The quality policy is periodically reviewed within the framework of management reviews of the quality system. This is to ensure its continual relevance and suitability. The process for reviewing the quality policy is defined in the instruction (QM-IN-01), Management Review.

# 5.4. Planning

# 5.4.1. Quality objectives

Quality objectives are established throughout the organization to implement the quality policy, to meet requirements for products and processes, and to improve quality system and quality performance. Quality objectives define the direction and priorities for continual improvement.

Quality objectives are classified into the following four categories:

- **Policy objectives:** These are principal, strategic objectives that apply to the whole organization. They are typically included in the quality policy itself Policy objectives are authorized by the top management
- Quality performance objectives: These objectives set specific, measurable targets for improving operational performance to ensure product conformity and customer satisfaction. They apply to department and functions having direct responsibility for activities that require improvement. Performance objectives are established, documented, and monitored within the framework of management reviews of the quality system, in accordance with the instruction (QM-IN-01), Management Review.
- Product quality objectives: These objectives pertain to improvement of products and associated services. Product objectives are established by the General Manager and top executive managers responsible for marketing and product development.
- Quality system objectives: These objectives pertain to improvement of quality system processes and performance. Quality system objectives are established, documented, and monitored within the framework of management reviews of the quality system, in accordance with the instruction (QM-IN-01), Management Review.

# 5.4.2. Quality management system planning

Quality system elements and processes are planned to ensure that the system is appropriate for its intended purpose, and that it is effective and efficient. The purpose of the quality system is:

- To achieve the quality policy
- To ensure and demonstrate our ability to provide consistently product that meets customer and regulatory requirements
- To ensure high level of customer satisfaction
- To facilitate continual improvement
- To comply with requirements of ISO 9001 standard

The output of quality system planning is documented in this quality manual, in associated procedures and instructions, and in other referenced documents. These documents identify and define all elements and processes of the quality system.

Planning of product realization, verification, and validation processes is addressed in Section 7.1 of this manual.

Improvements of the quality system are planned within the framework of management reviews. The output of this planning is expressed in the form of quality system objectives, as defined above in Clause 5.4.1 of this section, and in Corrective and Preventive Actions Procedure (QM-PR-O3) and Instruction for Management Review (QM-IN-O1).

# 5.5. Responsibility, authority and communication

# 5.5.1. Responsibility and authority

Responsibilities and authorities are defined in the company's organizational chart andjob descriptions in addition to the detailed representation in the procedures and quality plans. (See Annex 2 – Organizational Chart)

All departments and functions in the company are responsible for implementing, maintaining, and improving the quality system.

# 5.5.2. Management representative

The Quality Manager has been appointed by the General Manager to be **H.T.G**'s Management representative. Management representative has the authority and responsibility to:

- Ensuring the processes needed for the quality management system are established implemented and maintained
- Reporting to top management on performance of the quality management system and indicatingtheneedsfor improvement

- Promoting the awareness of customer requirements throughout the organization
- Coordinating communication with external parties on matters relating to the quality management system
- Following-up quality related complaints and assisting with corrective and preventive action

#### 5.5.3. Internal Communications

Internal communication regarding the quality system flows two ways:

- The management communicates to the organization the quality policy and objectives; customer and regulatory requirements; product and process specifications; verification and validation requirements and instructions on how to implement and use the quality system.
- The organization communicates to the management information and data regarding customer needs and expectations, customer satisfaction, quality performance, the effectiveness of the quality system and opportunities for improvement.

The information is communicated through manuals, procedures, instructions, drawings, specifications, quality records, reports, etc... and through training, on-the-job instruction and meetings.

Management review meetings have a special role in ensuring proper communication between the top management and the organization. The meeting provides the framework for the organization to report on the status of quality-related issues and activities and for the management to formulate policies and directives to change and/or improve the quality system. This process is defined in Instruction for Management Review (QM-IN-01).

The Quality Manager has the overall responsibility for ensuring that all pertinent documents, reports and records are distributed to appropriate departments and functions and that information and data about quality performance and the effectiveness of the quality system are reported to the top management.

# 5.6. Management review

#### 5.6.1. **General**

The purpose of management review is to:

- Evaluate the suitability, adequacy and effectiveness of the quality system
- Consider changes to the quality management system and to the quality policy and quality objectives
- Identify opportunities for improvement of the quality system, processes and products

Top management reviews the quality management system at least once a year. More frequent reviews are scheduled in periods when organizational or product changes, or other circumstances require increased attention and input from the top management.

# 5.6.2. Review inputs

Input into the management reviews consists of information and data related to quality performance of the organization. At a minimum, this includes:

- · Results of audits
- Customer feedback and complaints
- Process performance and product conformance data
- Status of preventive and corrective actions
- Changes that could affect the quality system
- Follow-up actions from earlier management reviews
- Recommendations for improvement

# 5.6.3. Review output

Management reviews are concluded with actions related to improvement of the quality management system and improvement of processes and products to better meet customer requirements. The review also identifies resource needs to implement these actions.

Results of management reviews are documented in minutes of meeting. The minutes include improvement actions and assign responsibilities and allocate resources for implementation of these actions.

#### 6. RESOURCE MANAGEMENT

#### 6.1. Provision of resources

The Quality Manager and other management personnel involved in the quality system are responsible for determining resource requirements for the implementation and improvement of the system.

Top management has the responsibility and authority for provision of resources. Allocation of resources for particular activities is integrated with the process of defining and initiating the activity. It may take the form of personnel assignments, allocation of space or equipment, training, procurement decisions, budgets, etc...Allocation of resources may be documented in the quality manual, procedures, minutes of meetings or any other form.

Management review of the quality system is the principal forum for allocation of resources for the operation and improvement of the system. All actions initiated

by the review are supported by allocation of specific resources necessary for their implementation. Instruction for Management Review (QM-IN-01), defines this process.

#### 6.2. Human Resources

#### 6.2.1. General

HTG SARL 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. Records of personnel qualifications and training are maintained.

# 6.2.2. Competence, Awareness and Training

Identification of training needs and awareness programs

Human Resources department is responsible for identifying training needs and awareness programs for company-wide participation, such as: general orientation, rules and regulations, quality system, safety and other company-wide systems and issues and for establishing departmental training programs.

Departmental managers are responsible for identifying competency requirements and training needs in their departments. In addition, training needs are often identified in response to corrective or preventive action requests (CARs), as nonconformity may be caused by inadequate training.

# Awareness and training programs

HTG SARL provides, or supports, the following categories of company-wide and departmental training and awareness programs:

- General orientation and quality system awareness training Explains how the product is used and how the quality system works to ensure product quality. Provided to all employees
- External training External seminars, conferences, and courses are to be provided to individual employees when needed
- Skill training in engineering, production, and quality control departmental training in specific skills. Often provided as on-the-job training

Training Procedure (HR-PR-01), describes in detail the training programs provided by HTG SARL.

# Effectiveness of training

Effectiveness of training is evaluated using the following approaches:

Follow-up performance evaluation of trained employees

- Review of the overall performance in areas relevant to particular training programs
- Consideration of competency and training when investigating causes of quality system failures and product or process nonconformities

Training records are established for all types of training. Records are normally established and maintained by the human resources department.

#### 6.3. Infrastructure

**H.T.G**provides and maintains the infrastructure needed to achieve conformity to product and customer requirements. The facilities are located at the address shown on the cover page of this manual.

The facilities are equipped with workstations, offices, stores, top of the line machinery and all the otherrequired utilities that might be needed for **H.T.G's** scope of work.

Adequate process equipment, both software and hardware are available within the facilities. Supporting services such as transportation, communication and information systems are also available.

#### 6.4. Work environment

Human Resources and departmental managers are responsible for ensuring suitable working environment for personnel. This is to include both human and physical factors.

The Quality Manager and departmental managers are responsible for identifying those operations where extreme environmental conditions could impact quality performance of personnel and result in product nonconformities.

#### 7. PRODUCT REALIZATION

# 7.1. Planning of product realization

As an integral part of the planning of the product realization processes, **H.T.G**ensures that its planning is consistent and applicable with the requirements of the other processes, the activity flows, the desired outputs, the control measures, the training needs, the equipment, the methods, the information, the materials and other necessary resources. As the plan develops, resources specific to the product are identified and allocated. The required verification, validation, inspection and test activities specific to the product are considered necessary and criteria for acceptance are established.

Records of the realization process and resulting product are generated to provide evidence that the requirements have been met.

# 7.2. Customer related processes

# 7.2.1. Determination of requirements related to the product

All requirements specified by the customer, including delivery and post-delivery activities are determined and planned for. The contract review takes into consideration statutory and regulatory requirements as well as additional requirements determined by **H.T.G** management, particularly those deemed necessary to meet instated customer or end user needs.

# 7.2.2. Review of requirements related to product

Through the Sales Process, **H.T.G**reviews all customers' contracts or orders and requested changes – if any - prior to its commitment to supply a product or a service to the customer. This review ensures that all pertinent information is available - such as definition of product requirements - and that **H.T.G**has the capability of meeting the requirements. If customers' product requirements are changed, **H.T.G**ensures that all relevant documents are amended and relevant personnel are notified.

#### 7.2.3. Customer communication

**H.T.G**communicates with its customers regarding inquiries, only in ways were concrete recordings can be done. Therefore, the use of emails faxes or hard copies submitted directly are accepted. Inquiries, contracts and order handling - including amendments - are communicated to the customer through the Sales Process, who is responsible of tracking and recording.

Quality Management department is responsible for receiving and processing customer feedback and complaints. All received customer communication is recorded in the customer feedback and complaints log.

Customer feedback and complaints are classified into categories to allow for better tracking of trends and evaluating improvement in specific aspects. Every complaint is communicated to relevant functions within and outside the organization. The responsible department and the Quality Management decide how to respond to the customer and, when appropriate, what corrective or preventive actions should be implemented internally.

Procedure for Handling Customer Complaints (QM-PR-04) provides detailed instructions how to receive, process, and respond to customer feedback and complaints.

# 7.3. Design and development

The design process is planned. Design activities are identified, qualified personnel are assigned to specific design responsibilities, and organizational interfaces are defined and controlled. Design input is formally documented and

reviewed. The design is verified and, when applicable, is validated with prototype testing or by other means. The design output is documented and checked before it is released for production. Design changes are controlled.

HTG designs its own standard catalogueand portfolio as well as customer-specified products and modifications.

# Design planning

The Head Architect is responsible for the planning of design projects, including the identification of design, review, verification and validation activities; scheduling the project; assignment of qualified personnel and control of organizational and technical interfaces.

# Design inputs

Design input for custom products comes from the Project Manager in coordination with the clients requirements. Designsprocessed accordingly are reviewed and approved before their release to clients.

# Design outputs

Design outputs are documented on two levels: Primary output consists of documents defining the designed product, while secondary output supports the design with calculations, analysis, etc... Design output documents are checked and approved before they are released for production. All design output documents are maintained and controlled.

# Design reviews, verification and validation

At a minimum, every design is verified by holding and recording design reviews and undertaking qualification tests and demonstrations. For new products, and when there is no experience with similar products, prototypes may be built and tested.

#### Design changes

Design changes are initiated after having received the clients' comments. Requests for engineering changes are evaluated and are recommended or rejected, by Engineering, Top Management and Quality Management, as applicable.

#### 7.4. Purchasing

# 7.4.1. Purchase Process (Purchase Process PU-PRO-01)

In order to ensure that the quality of the purchased products is in accordance with the customers' requirements, **H.T.G**has set criteria documents for the

evaluation, re-evaluation and selection of through the supplier and the products. Those records are all maintained for only later use.

#### 7.4.2. Purchase information

Purchase orders at **H.T.G** have been prepared in a way suitable for both the supplier and the process owner himself. Where all the necessary and adequate information are easily described, such as:

- a) Requirements for approval of product, procedures, processes and equipment
- b) Quality management system requirements
- c) Schedule of deliveries

The Purchase manager reviews purchase orders for accuracy and completeness prior to submitting to suppliers.

# 7.4.3. Verification of purchased product

Having issued the orders, **H.T.G**makes sure the required aredelivered on time.

Purchased products are inspected by Purchase Manager. This includes verification of product identity and quantity, visual inspection and, where applicable, verification that all requested certificates and quality records are available.

If the parts are incorrect, or show evidence of having been damaged in shipment, they are returned to the supplier or a discount is requested. If the count is incorrect, the parts may also be returned to the supplier, at the discretion of the Quality manager and/or the concerned manager or a request is issued to the supplier to send the missing items.

# 7.5. Production and service provision

# 7.5.1. Control of production and service provision

After having analysed and understoodcustomers'needs, **H.T.G**plans and controls production and servicing through:

- a) The availability of specifications that define the characteristics of the product that are to be realized
- b) The use and maintenance of suitable production equipment (see 6.3)
- c) The provision of suitable working environments (see 6.4)
- d) The availability and use of suitable measuring and monitoring equipment (see 7.6)
- e) Excessive training for the entire staff for better results
- f) Quality control on products throughout production phase

Release and delivery/post-delivery activities are defined and implemented through specific procedures (Procedure for Maintenance & Calibration MC-PR-01)

# 7.5.2. Validation of processes for production and service provision

This standard requirement is excluded from **H.T.G**QMS because there are no special processes for which the results cannot be verified by subsequent measurements.

# 7.5.3. Identification and traceability

**H.T.G**ensures that materials & products are all identified by suitable means throughout product realization.

Therefore, all the items will be identified as required by a label with appropriate details attached to the itemswith all the necessary information, moreover, the labelling system at **H.T.G** includes bar coding in order to make sure all the products are traceable for any later need.

# 7.5.4. Customer Property

HTG ensures the preservation of all customer properties through being bound to the arrangements set between HTG SARL and the customer.

# 7.5.5. Preservation of product

**H.T.G**preserves and protects the conformity of product during internal processing and delivery to the intended destination. Parts and materials are identified and handled in accordance with the requirements stipulated by the customer.

Products are not released until all specified activities have been completed, tested and the related documentation is available and authorized.

# 7.6. Control of monitoring and measuring devices

**H.T.G**controls, calibrates, maintains, handles and stores applicable measuring and monitoring devices used to demonstrate conformance of product to specified requirements

Two methods are used to calibrate the required measuring and test equipment:

- By recourse to a certified organization
- In house by H.T.G.

# 8. MEASUREMENT, ANALYSIS AND IMPROVEMENT

#### 8.1. General

**H.T.G**monitors, measures and evaluates products, processes and customer satisfaction on a daily bases. Those collected data and results are then used in

order to draw the necessary plans to improve the efficiency of the quality management system.

# 8.2. Monitoring and measurement

# 8.2.1. Customer satisfaction

**H.T.G**monitors information and data on customer satisfaction and dissatisfaction. The methods and measures for obtaining customer satisfaction information, the nature and the frequency of reviews are defined by the Quality Manager in coordination with the General Manager and are performed mainly through the procedure for Handling Customer Complaints (SA-PR-01) and Analysis of Customer Satisfaction Surveys which are done at least once a year.

The results of the customer satisfaction analysis are discussed at the management review meeting.

## 8.2.2. Internal audit

Quality manager establishes an internal audit plan and schedule in accordance with Internal Quality Audit Procedure QM-PR-01. Every activity and area is audited at least once a year. Selected activities are audited more frequently, depending on their importance and quality performance history.

In order to carry on with the necessary observations, **H.T.G** has created an internal audit team, that has been well trained and prepared, to perform the audits continuously to determine if the quality management system has been implemented correctly, maintained and conforms with ISO 9001:2008.

For this, a documented procedure is established to define the responsibilities and requirements for planning and conducting audits, establishing records and reporting results. Records of the audits and their results are maintained.

When the auditing cycle is completed, all nonconformity reports established during the cycle are compiled and analysed, and are presented at the management review meeting.

# 8.2.3. Monitoring and measurement of processes

**H.T.G**applies suitable methods for measurement and monitoring of processes necessary to meet customer requirements and to demonstrate the process's continuing ability to satisfy its intended purpose. **H.T.G**considers the type and extentof monitoring or measurement appropriate to each of its processes in relation to their impact on the conformity to product requirements and on the effectiveness of the quality management system. Measurement results are used to maintain and improve those processes.

Process owners have been assigned by the top management to monitor the process performance during the internal audits, which is discussed during the management review.

# 8.2.4. Monitoring and measurement of product

**H.T.G**applies suitable methods for measurement and monitoring of the characteristics of the product to verify that requirements for the product are met.

Product does not proceed or is not dispatched until all specified activities have been satisfactorily completed and the related documentation is available and authorized. Only personnel performing final product inspections have the authority to release products. The identity of the person authorizing product release is recorded.

# 8.3. Control of nonconforming product (Procedure for control of nonconforming products-services PU-PR-02)

**H.T.G**has set methods and responsibilities for controlling non-conforming products and services in order to ensure that they are segregated from all good products, re-checked and classified to prevent their inadvertent use and delivery.

Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained, are maintained. Decision results are discussed during management review meeting.

# 8.4. Analysis of data

Data and information recorded in quality records are compiled and analysed periodically to determine trends in the performance and effectiveness of the quality system and to identify opportunities for improvement.

The Quality Manager is responsible for coordinating these activities, and for reporting conclusions and trends to the top management. This is usually done within the framework of management reviews of the quality system.

Following categories of information and data are recorded, compiled and analysed:

- Characteristics of processes and products.
- Conformance to customer requirements.
- Suppliers Performance.
- · Customer feedback.
- Quality System:
  - Effectiveness of training.
  - Effectiveness of quality system.

The results of the data analysis form a key input to the continual improvement program (See 8.5.1).

#### 8.5. Measurement and Improvement

# 8.5.1. Continual improvement

HTG SARL deploys continual improvement philosophy throughout the entire organization. The improvement effort is driven by goals defined in the quality policy and quality objectives. Improvement opportunities are identified by analysing quality performance data and information. Improvement projects are defined and implemented through the system of corrective and preventive actions and management review actions.

# 8.5.2. Corrective & preventive action

Causes of identified nonconformities are investigated and, where appropriate, corrective actions are implemented to ensure that nonconformities do not recur. Preventive actions are implemented to eliminate the causes of potential nonconformities. Corrective and preventive actions taken are recorded and are followed up to ensure that they have been properly implemented and that they are effective.

Preventive and corrective actions are initiated, processed and followed up using anIAF (Improvement Action From). The form documents the unsatisfactory condition and the corrective or preventive action to be taken, and is used to record the verification and closure of the action. Open CARs are reviewed regularly to ensure that the actions are implemented and followed up in a timely manner. Procedure QM-PR-03, Corrective and Preventive Action, explains how to use the IAF system.

ANNEX 1
PROCESS INTERACTION MATRIX

1	2	3	4	5	6	7	8	9	10	11

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		QS	PU	SA	WH	LPM	СРМ	TR	MA	HR	ΙT	PR
1	QS		Х	X	X	Х	X	X	X	X	X	X
2	PU	X		X	X	X	X	X	X	X	X	X
3	SA	X	X			X	X			X	X	X
4	WH	X	X			X	X	X	X	X	X	X
5	LPM	X	X	X	X		X	X	X	X	X	X
6	СРМ	X	X	X	X	X		X	X	X	X	X
7	TR	X	X		X	X	X		X	X	X	X
8	MA	X	X		X	X	X	X		X	X	X
9	HR	X	X	X	X	X	X	X	X		X	X
10	IT	X	X	X	X	X	X	X	X	X		X
11	PR	X	X	X	X	X	X	X	X	X	X	

QM=Quality System

PU=Purchase

SA=Sales

WH=Warehouse

**LPM=Large Project Management** 

**CPM=Curtain Project Management** 

**TR=Transportation** 

MA=Maintenance

**HR=Human Resources** 

IT=Information Technology

PR=Production

Annex 2 Organizational Chart

