

# Quality Manual

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## **Purpose:**

This Quality Manual is intended to clarify and document the quality policy of Global Gas Solutions and to describe how the organization organizes its activities and processes, prepares and executes them, in order to comply at all stages of the process with the requirements of the ISO 9001:2000 standard.

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## 1. Global Gas Solutions – A Brief History

Global Gas Solutions or shortly GGS is a young innovative company, however built on many years of experience.

Management as well as engineers and commissioners can rely on many years of good service in the industry, working for well recognised market leaders in the field of equipment construction and installation for our main markets.

The main task of our company is to serve customers with reliable solutions for custody or non custody fluid measurement, filtration and or pressure reduction in the energy sector as well as project management and engineering in the (petro) chemical industry.

Thanks to independency our company gains the flexibility to work only with the best available equipment on the worldwide market, without being blocked by own product portfolio.

Global Gas Solutions supports customers with engineering (mechanical, electrical and instrumentation, software PLC and or supervisory), project management, site supervision, start-up and commissioning, etc... to cover the complete line of support and even more, GGS is able to perform complete turnkey projects.

The main goal of Global Gas Solutions is to built a long term relationship with customers all over the world based on trust and technical strength. Know-how, flexibility and integrated quality control guarantee fast and tailor-made job, specific according to your needs

Global Gas Solutions is doing the utmost to become a monument in the international custody fluid transfer and to grow on the trust and respect of many international engineering companies and end-users.

## 2. Our Quality Vision

The main goal of GGS is to supply high quality solutions to our customers in multidisciplinary engineering and project management support, onsite commissioning activities, construction and supervision till complete turn key projects in the natural gas and petrochemical industry.

GGS is a flexible and multidisciplinary team of engineers with long years of experience in the natural gas and petrochemical industry.

In order to serve the needs of our clients in the best possible way, we handle every project as per requirement of the client, depending on what kind of support or delivery is required. In doing this, we know and respect laws and regulations which may bear on our products or our organization.

Because GGS works as an independent entity the selection of equipment used in the project will only be based on specifications and requirements of the client and not on a product scope of the company.

Every project will be handled by a dedicated project team of specialists and project manager. This setup provides the best results and efficiency. GGS believes that in every successful project the keyword is “communication”.

Clear external communication towards customers and equally important the internal communication in the project team are essential for a successful project.

The quality management system described further in this handbook is a prime tool to organise and manage what we described in this quality policy and a token of our commitment towards our customers, external parties and employees, and towards continual improvement.

It will guarantee, through its implementation, the accomplishment of our quality policy and compliance with the international ISO 9001:2000 Standard.

Peter Himschoot

Karl Aerts

### **3. Scope and Purpose**

The Quality Management System (QMS) described in this manual covers all activities of Global Gas Solutions:

Industrial services, including: (detail) engineering, construction and commissioning of mechanical and electrical instrumentation installations, industrial automation and project management.

The scope of this document covers the ISO 9001:2000 quality standard. This manual, together with the procedures mentioned in the manual, provides guidance in maintaining full conformity with the requirements of this International Standard.

Sections 7.3. and 7.5.2., are not applicable to this QMS, and have been excluded from the scope, since:

- a) Global Gas Solutions does not develop products, but restricts its activities to engineering known and existing products and components (Par. 7.3.).
- b) The output of all processes can be verified (Par. 7.5.2.)

## 4. Quality Management System

### 4.1. General Requirements

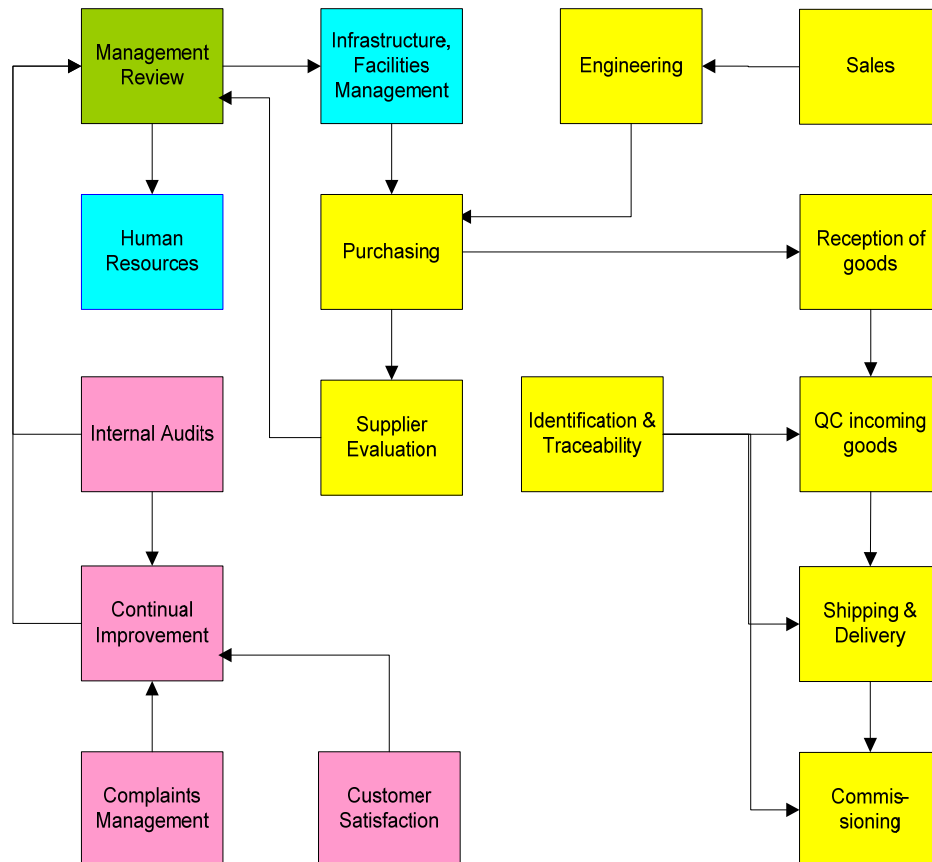
GLOBAL GAS SOLUTIONS has established, implemented, maintains and continually improves a Quality Management System (QMS) in accordance with the requirements of the International Standard ISO 9001:2000.

The processes needed for this Quality Management System, and their interrelations, are depicted in the figure on the following page.

In addition to the processes depicted above, a number of processes have been identified to support, measure, monitor and analyze these processes, and to implement action necessary to achieve planned results and continual improvement. They are discussed in more depth in the following sections of this Quality Manual.

### 4.2. Documentation requirements

The documentation of the Quality Management System includes a number of documented procedures, i.e. procedures that are established, documented, implemented and maintained under the surveillance of the Management Representative.



These procedures cover the items expressly mentioned in the International Standard, as well as those procedures the organization deems necessary to ensure the effective operation and control of its processes (as depicted above).

#### **4.2.1. Quality manual**

This Quality Manual is part of the overall documentation of the organization, and constitutes the primary document for all employees, to inform and guide them through the company's QMS.

#### **4.2.2. Control of documents**

Documents that are part of this QMS, or are relevant to the implementation and maintenance of the company's QMS, are controlled and managed according to PROC 01-00: Document Control. This procedure takes care of:

- The approval, review and re-approval of documents
- The identification of revision status
- The distribution of documents
- The prevention of unintended use of obsolete documents
- The continuous availability of documents

#### **4.2.3. Control of quality records**

Records required for the QMS are controlled according to procedure PROC 01-00: Document Control and Record Registration.

These records are thus maintained to provide evidence of conformance to requirements and of effective operation of the QMS.

## **5. Management responsibility**

### **5.1. Management commitment**

Management is committed to the development and improvement of the Quality Management System. This Quality Manual as well as all operational and supporting procedures are communicated to every employee of Global Gas Solutions.

The quality policy that is formulated hereafter thus becomes known to and binding for the whole organization.

Management Reviews are organized on a regular basis, according to procedure PROC 02-00.

## 5.2. Customer focus

As already expressed in our Quality Vision (section 2.), we want to ensure that customer needs and expectations are determined (PROC 07-00: Sales and Contract management), converted into requirements and fulfilled with the aim of achieving customer satisfaction (further operational procedures).

## 5.3. Quality policy

Our quality Policy has been expressed under section 2: “Our Quality Vision”

This quality manual, together with the quality procedures, is the primary tool in making this quality policy come through.

This policy is reviewed on a regular basis during Management Reviews, according to procedure PROC 02-00.

## 5.4. Planning

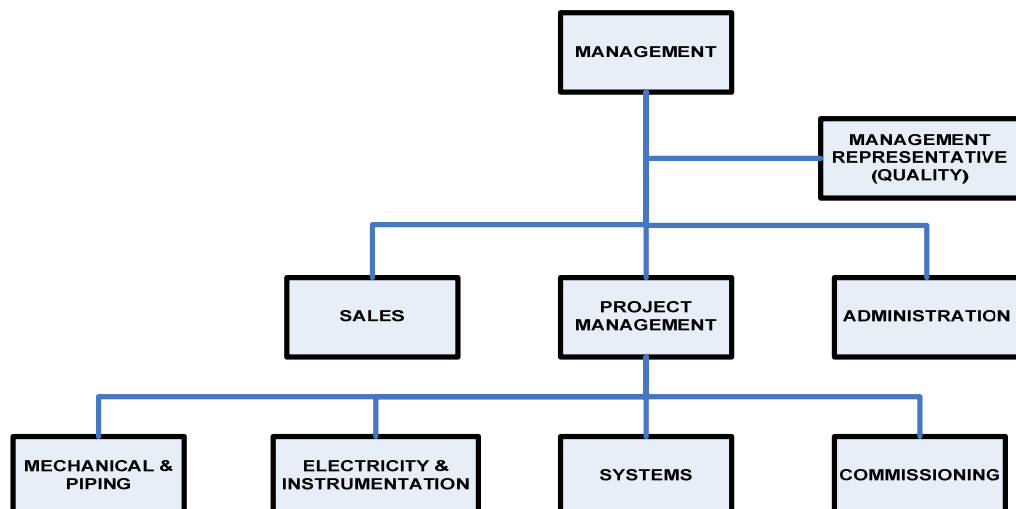
Overall objectives for the company are expressed in a business plan, which is from time to time updated by Management, approved by the board, and communicated to the different stakeholders of the company. Revision of the business plan is discussed and approved at the occasion of Management Review meetings.

Quality objectives needed to meet the requirements for a given product, will be captured at the time of Requirements Specification (PROC 07-00).

## 5.5. Responsibility, authority and communication

### 5.5.1. Responsibility and authority

Functions and their interrelations within the organization, including responsibilities and authorities, are defined and communicated according to procedure PROC 04-00: Job Descriptions. Their interrelation is illustrated in the following organization chart:



### **5.5.2. Management representative**

The Managing Director appoints a Management Representative for this Quality Management System. This individual has the authority and responsibility to:

- Be the Management Representative for the quality standards listed in section 3. (Scope and Purpose).
- Ensure that a Quality Management System is established, implemented and maintained in accordance with the quality standards listed in section 3.
- Report on the performance of the Quality Management System to the Management Review meetings, as a basis for improvement of the system.
- Ensure that records of all Management Reviews and subsequent actions are maintained.
- Release all approved revision changes to this Quality Manual .

### **5.5.3. Internal communication**

Communication between the various levels of the organization, regarding the processes of this QMS and their effectiveness is achieved by the implementation of the Internal Audit procedure (PROC 14-00).

## **5.6. Management review**

Management reviews the QMS, at planned intervals, to ensure its continuing suitability, adequacy and effectiveness, and according to procedure PROC 02-00: Management Review.

This review evaluates the need for changes to the QMS, including changes to the quality policy and the quality objectives.

## **6. Resource management**

### **6.1. Provision of resources**

A number of procedures aim at providing, in a timely manner, the resources needed to implement and improve the processes of the QMS and to address customer satisfaction. They address human resources as well as facilities and the work environment.

### **6.2. Human resources**

In order to guarantee the necessary competencies (on the basis of applicable education, training, skills and experience) of employees who are assigned responsibilities defined in the QMS:

- These competencies are documented in the job descriptions for every function in the organization, according to PROC 04-00: Job Description.
- Competency and training needs are identified and the necessary training provided and evaluated where needed, according to PROC 05-00: Training

and Competency Management. This procedure also takes care of the maintenance of appropriate records of education, experience, training and qualifications of employees.

### **6.3. Infrastructure**

Facilities needed to achieve conformity of products, are provided by the organization, according to procedure PROC 06-00: Facilities Organization.

### **6.4. Work environment**

The same procedure (PROC 06-00) caters for the management of the physical factors of the work environment.

## **7. Product realization**

### **7.1. Planning**

The sequence of processes and sub-processes required to achieve the product, are described in the following paragraphs. These refer to the different procedures that describe:

- How quality objectives for the product, project or contract are determined
- How resources and facilities specific to the product are provided
- Which verification and validation activities are needed, as well as criteria for acceptability
- Which records are necessary to provide confidence of conformity of the processes and the resulting product.

### **7.2. Customer-related processes**

#### **7.2.1. Identification of customer requirements**

Identification of customer requirements including requirements for availability, delivery and support, product requirements not specified by the customer but necessary for the intended or specified use, and obligations related to the product, including regulatory and legal requirements, have to be determined prior to signing a contract.

The rules of conduct for these matters are managed according to procedure PROC 07-00: Sales and Contract Management.

#### **7.2.2. Review of product requirements**

The identified customer requirements, together with additional requirements determined by the organization, have to be reviewed prior to the commitment to supply a product to the customer.

The process for conducting this review is also described in PROC 07-00: Sales and Contract Management.

#### **7.2.3. Customer communication**

Communication with customers relating to product information, enquiries and contracts (or changes to contracts), is also governed by PROC 07-00.

Communication with regards to customer feedback, including customer complaints, is governed by procedure PROC 15-00: Customer Satisfaction and Complaint Management

### **7.3. Design and development**

Design and development is to the engineering aspects of an installation. No products are being developed by Global Gas Solutions. Therefore, design and development is excluded from this QMS.

### **7.4. Purchasing**

Purchasing activities are managed and controlled conform PROC 08-00: Purchasing, and cover following activities:

- Authorization to purchase
- Supplier selection
- Supplier evaluation on a regular basis
- Product verification, including verification activities at the supplier's premises.

### **7.5. Production and Service operations**

#### **7.5.1. Operations Control**

Production and Service operations are controlled through:

- The availability of information that specifies the characteristics of the product
- Where necessary, the availability of work instructions, manuals and standards of good craftsmanship.
- The use and maintenance of suitable equipment for production and service operations
- The availability of measuring and monitoring devices
- The implementation of monitoring activities
- The implementation of defined processes for release, delivery and applicable post-delivery activities

These activities are implemented, controlled and maintained according to procedures PROC 16-00: Handling, Packaging and Transportation, and PROC 11-01: Measurement and Controls.

#### **7.5.2. Validation of processes**

This paragraph of the International Standard is not applicable to the company's activities. The output of all processes can be measured and verified.

#### **7.5.3. Identification and traceability**

The identification, where appropriate, of the product throughout production and service operations, including status identification and traceability requirements are managed according to PROC 09-00: Identification and Traceability

#### **7.5.4. Customer property**

Exercising care with customer (and supplier's) property, in order to verify, maintain and protect such property while it is under the organization's control or being used by the organization, is governed by procedure PROC 17-00: Customer property. This procedure also takes care of the preservation of intellectual customer property, through the use of Confidentiality Agreements.

#### **7.5.5. Preservation of product**

Preservation of conformity with customer requirements during internal processing and delivery, is managed as described in procedure PROC 16-00: Handling, Packaging and Transportation.

### ***7.6. Control of measuring and monitoring devices***

Control of measuring devices is done through regular calibration by external companies and internal verification of measuring devices, as described in procedure PROC 12-00: Calibrations.

## **8. Measurement, analysis and improvement**

### ***8.1. Planning***

Measurement and monitoring activities are governed by a number of procedures:

- PROC 11-00: Commissioning
- PROC 11-01: Measurements (Quality Control)
- PROC 13-00: Control of Nonconformity
- PROC 15-00: Customer Satisfaction and Complaint Management
- PROC 14-00: Internal Audit
- PROC 03-00: Continuous improvement (incl. Corrective and Preventive Actions)

### ***8.2. Measurement and monitoring***

#### **8.2.1. Customer Satisfaction**

The methodologies used for obtaining and using customer information on his satisfaction and/or dissatisfaction are described, implemented and maintained according to procedure PROC 15-00: Customer Satisfaction.

#### **8.2.2. Internal Audit**

Periodic internal audits are conducted conform procedure PROC 14-00 to determine whether the QMS:

1. conforms to the requirements of the International Standard
2. has been effectively implemented and maintained

The procedure describes the responsibilities and requirements for conducting those audits, ensuring their independence, recording results and reporting to management.

### **8.2.3. Measurement and monitoring of processes**

Realization processes necessary to meet customer requirements are monitored during internal audits, performed according to procedure PROC 14-00. Where appropriate, Management decides to monitor specific "KPI's" (Key Performance Indicators) on important processes.

### **8.2.4. Measurement and monitoring of product**

Evidence of conformity with acceptance criteria is documented and products are subsequently released according to procedure PROC 11-01: Measurements, depending on the nature of the product.

## **8.3. Control of nonconformity**

Products which do not conform to the requirements are treated and controlled to prevent unintended use or delivery. When detection of the nonconformity occurs after delivery or use has started, appropriate actions have to be taken regarding the consequence of the nonconformity.

These actions are governed by procedure PROC 13-00: Measurements and Control of nonconformity

## **8.4. Analysis of data**

Data to determine suitability and effectiveness of the QMS are collected and analyzed according to procedures:

- PROC 02-00: Management Review
- PROC 15-00: Customer Satisfaction and Complaint Management
- PROC 14-00: Internal audit

## **8.5. Improvement**

Continual improvement is obtained through the implementation of a number of procedures:

- PROC 02-00: Management Review
- PROC 15-00: Customer Satisfaction and Complaint Management
- PROC 14-00: Internal audit
- PROC 11-01: Measurement
- PROC 13-00: Control of nonconformity

These procedures may all lead to Corrective and/or Preventive actions, according to PROC 03-00: Continuous Improvement.

## 9. Reference to the international standard

The following table lists all quality procedures that make this Quality Management System, with their reference to the appropriate paragraph or section of the ISO 9001:2000 international standard.

This allows the reader of this manual to better position the different elements of the QMS in the overall context of this international standard.

Identification and Subject of document	Ref. to ISO 9001:2000
PROC 01 Document Control (paper and/or electronic format, control & release, safeguarding against loss or deterioration)	4.2.
PROC 01 Record Registration	4.2.4.
PROC 02 Management Review (includes Quality Policy review & communication, and updating of Organization Chart)	5.1./5.2./5.3. 5.4.1./5.5.3./5.6.
PROC 03 Continuous Improvement	8.5.
PROC 04 Job Descriptions	5.5.1./5.5.2.
PROC 05 Training and Competency Management	6.2.1./6.2.2.
PROC 06 Facilities Organization	6.1./6.3./6.4.
PROC 07 Sales and Contract Management	7.2.
PROC 08 Purchasing	7.4.
PROC 09 Identification & Traceability	7.5.3.
PROC 10 Engineering	7.5.1.
PROC 11-00 and 11-01 Commissioning, Measurement and Controls.	8.2.4./8.3.
PROC 12 Calibration of measuring equipment	7.6.
PROC 13 Control of Non-Conformity	8.3.
PROC 14 Internal Audit	8.2.2./8.2.3./8.4.
PROC 15 Customer Satisfaction and Complaint Management	8.2.1.
PROC 16 Handling, Packaging, Transportation	7.5./7.5.5.
PROC 17 Customer Property	7.5.4.