

MAURER Quality Management

QM

MAURER SÖHNE
forces in motion



Since 1876



Dear Colleagues! Dear Partners!

This handbook contains a documentation summary of our Quality Management System (QMS). Our QMS is aligned with the international ISO 9001:2008 norm, customized to our industrial requirements and operational conditions.

Its goal is the comprehensible and constant guidance of our internal workflow as well as to ensure and increase our quality level.

Standardized quality requirements will help us to continually reduce errors and when possible, completely avoid them.

The decision between success or failure lies in the power of each individual, i.e. our attitude, our actions and our willingness to not simply accept problems but to see them as challenges to meet and part of the implementation of a mutual approach to the solution.

Our QMS offers methods and tools that support our improvements.

Only when each one of us optimally performs within their own field of responsibility – for themselves as well as for the company – are we able to secure our future position on the market as a successful and modern corporation.

The Maurer Söhne GmbH & Co. KG Management

Jörg Beutler

Dr. Christian Braun

Klaus Vogt



The Benefits of our Quality Management System



Protecting and improving our company and its ambitions are more than ever our core philosophy and motivation. We can only live up to, or even exceed the expectations of our customers, employees and partners when we are consciously aware of the trust and appreciation that they offer us.

A standardized QMS helps us to retain internal know-how and facilitates efficient work flow and responsibilities together with rules while continually improving our know-how through efficient communication.

Our top priority is customer satisfaction and the maintenance of our (successful) business environment. In order to detect, evaluate and subsequently find the appropriate requirements levels, we have defined a system that guarantees a constant quality level and that also reduces our daily labour input.

The improvement of this system is each employee's individual responsibility - by creating an awareness and continually pursuing improvement within their own task area - for themselves, our customers and our company. With the assistance of many individual departments, our QMS becomes a flexible tool and makes a highly relevant contribution for the sustained protection of our working environment.

The internationally acknowledged quality standard ISO 9001 forms the basis for our QMS. This has been customized to our quality requirements and documents our operations to the general public.

Our environmental quality system certified in accordance with ISO 14001 as well as our occupational health and safety management according to OHRIS/OHSAS 18001 are both structured by the same parameters. Together with the QMS they build an integrated management system that secures the quality as well as environmental and health protection at the Maurer Group locations.

The Parameters of our Quality Management System



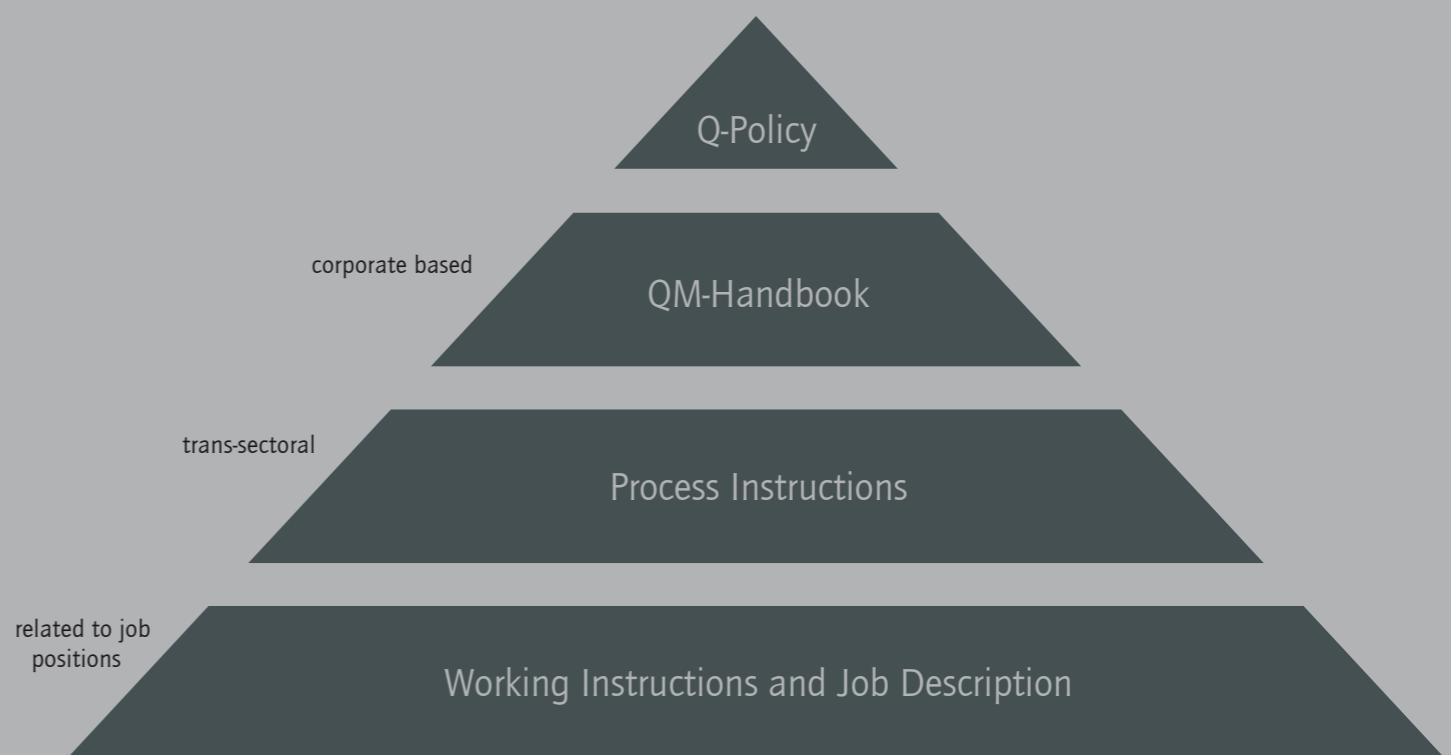
Our quality policy is an integral part of our working principles. It is according to these principles that our employees and management intend to mutually reach the set goals. They are meant to promote teamwork and cultivate initiative and activity from each employee as well as from the management, enabling everyone to orientate their personal behaviour and actions towards long-term corporate goals.

Defined processes assist us in reaching our goals that are measurable and assessable in quantifiable numbers. Internal audits serve as a periodical monitoring system of these process achievements and our QMS.

The corporate management makes an overall appraisement of all company activities with regular management reviews. These reviews assess the development and efficiency of all economic

and quality aspects. They conduct these measurements and assessments into our visions, policies, goals and ultimately, our processes.

This promotes a cycle of continuous learning, improvement and development which will help us reach our mutual goals as efficiently as possible.



Quality Policy of our Quality Management System

Quality – a success module

Quality is the basis of Maurer Söhne's success. Our customers worldwide show their trust in us by buying our products. This trust is supported by a quality image and the reputation for delivering high quality that has been created over many years.

Concessions relating to the safety of our products cannot be accepted under any circumstances and we must do everything in our power to avoid health hazards. Likewise, all relevant laws and regulations must be adhered to and not questioned. Such manpower, facilities and resources will always be provided that guarantee the safety and conformity of our products.

These efforts pay off. Companies with a high quality level make fewer errors, lose less time and money and work more efficiently. They achieve higher profits. Quality is our most successful product. It is the key to success, today and tomorrow.

Customer first

We want our customers to benefit from our research and development so that we can always offer technically outstanding products. With these products we help our customers not only to reach their goals but also exceed them. Measured by quality and reliability, we want to be a first-choice partner and supplier for our wide range of customers.

In either case, our customers expect an adequate and equivalent value for their investment – good quality for a reasonable price. When we offer our customers quality, we also mean environmental quality. We share society's concerns about environmental issues and pledge to foster only environmentally friendly business practices worldwide. Customers are the core of our business and we have to continually keep their requirements and preferences in mind.

Quality – the competitive edge

We live in a competitive world and should never forget that our customers always have alternatives to choose from. If they are not satisfied with a proposal or product of ours, they will choose another manufacturer. It is therefore our goal to offer a favourable price-performance ratio in each product class and market segment in which we operate.

The pursuit for the highest quality at any price is not a guarantee for success, nor are unreasonable price reduction practices. A lasting competitive edge is achieved through the balanced search for an optimal value creation for the customer together with quality improvement and simultaneous cost reduction.

Success does not come on its own. We have to observe our competitors and learn from them. Should they make something better than we do, then we have to improve our performance too. We can attain that competitive edge with quality.

Quality is a joint venture

The operational departments are completely responsible for compliance with the defined quality requirements. In addition to our production departments, also the development, construction, purchasing, shipping and sales departments play a crucial role in delivering quality to our customers. This requires in-depth knowledge of the products and services that Maurer Söhne offers.

The quality control department offers specific assistance, cultivates quality awareness and assumes the supervision of the system's efficiency. It monitors the operational processes according to the defined requirements and must intervene should deviations occur. The quality policy and principles, the obligatory standards and the recommended operational methods for performance are defined in our quality system. This applies for the entire Maurer Group. Further instructions are usually communicated through product specific instructions, norms and guidelines.

We expect our suppliers to share Maurer Söhne's dedication to quality. They also have to establish an appropriate quality system in order to be able to fulfill our requirements. Our quality endeavours have to be carried out by all of the Maurer Group departments as well as by our suppliers.

Quality is created by our employees

In order to be able to create quality, it is necessary not only to have adequate production facilities, procedures and systems but also interested and dedicated employees. Each employee has to do his or her best to provide the high quality products and service that is expected of us.

Training and team spirit are decisive factors for the successful implementation of high quality standards. Continuous training ensures that everyone understands their duties and has the required skills for their execution. Teamwork promotes the achievement of results that are better than the sum of individual performances.

Our department managers motivate our employees by exemplifying the deployment of quality by setting challenging goals, delegating responsibilities and honouring good performance. Work goals can be achieved in the shortest of time only with the active involvement of our employees. Quality has to become a habit for all employees.

Quality means taking action

Quality is the result of conscious action. It is the management's responsibility to announce the quality goals and provide the necessary resources for their implementation. The employees then have to make "quality" perceptible within the company. Progress can be reached by being sensitive to our customer's needs and measuring our performance accordingly. Deficiencies and errors have to be evaluated and corrected. Problems have to be anticipated and avoided before they occur. We have to recognize opportunities and use them to our advantage.

Staying as we are leads to few or no options in the future. That is why we have to pursue continual improvement in all operational areas. "Top class" is something that can be reached with many small improvements as well as major changes.

Quality has top priority at Maurer Söhne. Let us act accordingly.





Organization of our Quality Management System

The quality system described in the handbook is valid for all the Maurer Group employees and locations. The organizational chart illustrates the setup of our company and is assessable on the Maurer intranet.

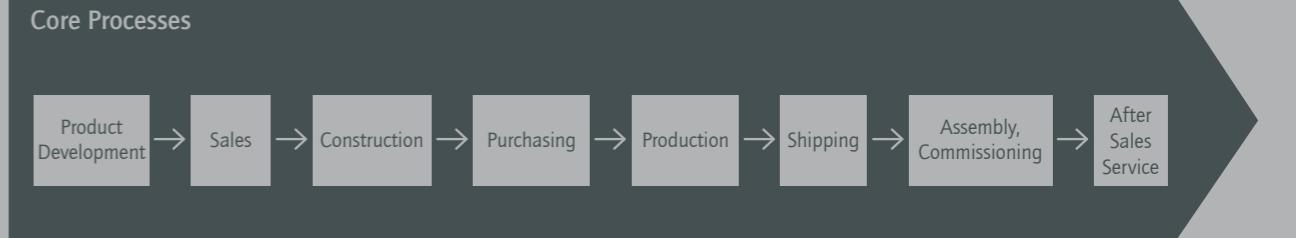
- Corporate management processes
- Overall operational core processes
- Support processes

These processes are defined in our procedure and working methods manual assessable on the Maurer intranet. Explanations and process flow charts clearly and coherently illustrate the work flow sequences. This process establishes a measurable procedure that defines interacting and influencing factors. Measurement and assessment of the processes are a prerequisite for continuous improvement.

Management Processes



Customer Demand



Supporting Processes



Customer Demand



Processes and Methods of Operation

All the Maurer Söhne GmbH & Co. KG processes and methods of operation described below are valid for all corporate locations, and have been authorised by the executive board after being examined by the quality manager and are at the disposal of all relevant employees on the Maurer intranet.

The implementation or repealing of these processes and methods of operation are subject to regulated guidelines. The cycles defined in the processes and methods of operation illustrate the executive management's guidelines and their compliance and implementation are continually examined.

Management Processes

Goal, strategy, communication

This process serves the upkeep as well as the continuous enhancement and improvement of the integrated management systems and ensures the optimal flow of information in line with the development and installation organization. It defines the guiding idea, politics, strategy and goals for quality, environment protection and occupational safety.

Appropriate management and communication structures of all the process levels shall be implemented and sustained. This policy includes reporting channels, approvals, records and documentations of the internal verbal and written flow of information as well as ensuring that they are current and archived.

Continuous improvement process (CIP), audits, assessment

CIP is the sum of all the methods leading to the precise improvement of quality, environmental and health protection, i.e. elimination of errors. The improvement management should be implemented and sustained according to the predefined corporate guidelines.

Human resources management makes sure that satisfied employees help to supply the needed products and services resulting in the wished-for level of customer satisfaction.

The process "audit management" defines how internal audits are to be planned, assigned, conducted and documented. The overall goal of the internal corporate audits is:

- to reassess the efficiency of the valid methods of implementations, upkeep and improvement of the QMS
- to ensure the conformity of the ISO 9001 requirements and the QMS
- to identify improvement potential.

The "assessment" method determines the aligning of content with project schedules with management reviews. The goal of these reviews is to identify economic and strategic aspects as well as to investigate the efficiency and applicability of the QMS which could trigger a potential improvement.

Resource and human resources management

Resource management incorporates staff selection, planning and provides an adequate working environment, operating resources and the necessary infrastructure including facilities and equipment.

In order to reach this goal, the required staff has to be determined, planned, located, selected and deployed according to their level of education and expertise. Systematic training can improve the performance of certain employees. Furthermore, the process includes methods to enhance employee motivation.

Customer orientation

The customer's wishes and expectations are to be identified and implemented in line with the creation of the product so that the corporation can react to customer wishes at short notice and customer satisfaction can be enhanced. The evaluation of customer satisfaction is to be carried out regularly in written form and individual quality interviews with the customer from which the impressions and conclusions shall be recorded, analysed and evaluated.

Important components of customer orientation are customer satisfaction and compliance with warranty issues as well as customer complaint management. Analyzing the source of these issues and thereby eliminating repetitive errors is indispensable.

Furthermore, regarding individual safety a special process called "safety message management" has been established.

Core Processes

Product development

The expansion of the product portfolio is undertaken after considering optimal cost development and construction of new products according to self-determined specifications including the necessary valid data and documents. The innovation in management occurs through structuring of different departments and plays a vital part in the basic principles of our corporation's business success.

Sales and order processing

The process "sales and contract preparation" encompasses all sales operations – from initial contact with a potential new customer to contract review to contract conclusion and finalisation. It defines a consistent and structured process in compliance with all legal and corporate specific requirements. This process establishes the basic conditions for the subsequent order processing.

This illustrates the core of the corporate added value processes. Beginning with the definition of the customer structured order entry, it describes all further workflow for production, scheduling and the on time and cost optimization of order processing.

Project management supports the processing of larger orders. One part of order processing is invoicing and credit control. The goal of this process is to secure corporate assets and the reduction of outstanding debts through efficient and rapid processing.

Purchasing

This process includes the selection, certification and regular assessment of appropriate quality suppliers as well as on time and cost optimal purchasing of all quality relevant material from approved suppliers.

Production

The main goal of this process is cost reduction and on time production. This process begins with the planning and organization of the work flow of the incoming supplies, making ready for dispatch and the controlling of the manufacturing processes in order to reach our goals.

Shipping

The shipping process encompasses a high quality standard, on time scheduling, cost-effective organization, handling, assignment and controlling of appropriate forwarders under the stipulated customer guidelines.

Assembly and Commissioning

The assembly process encompasses a high quality standard, on time scheduling, cost effective organization, handling of parts under the contract guidelines and customer specifications.

For the electrical and mechanical components the process ends with commissioning.

Service

The service process supports the customer during operation and utilization of the product – in particular with preventive inspections, precise maintenance, prompt spare parts availability and comprehensive training. The continuous expansion and improvement of customer service offers are targeted towards the satisfaction of the existing and new customers.

Supporting Processes

Inspection/Quality control

This process encompasses the quality control of the operational facilities, equipment and the handling of materials with environmental relevancy. Planning parameters ensure that statutory or licensing requirements for all technical facilities, activities or health hazardous materials are adhered to. Measurement and assessment of relevant processes is a significant element used to improve quality, environmental and health protection.

The determination of intervals and activities are necessary for the service, maintenance and modernization of facilities, work equipment and buildings. Deviations shall be rectified through corrective actions by the organization.

The control of the inspection equipment consists of the selection and provision of appropriate measuring instruments that are specifically calibrated and approved. It is very important that all quality relevant products are properly labeled during the entire manufacturing process from storage to handover to the customer as well as ensuring traceability.

Business administration, IT and risk management

Faulty material, components and products shall be labeled and prevented from further usage until the responsible department issues its approval for further usage. The core element of this process is to detect failures, dysfunctions, identification of preventative measures for continuous improvement.

Environment protection and operational safety

This process encompasses the identification and assessment of significant environmental aspects and hazards in the field of operational safety and health protection. Its goal is compliance with the respective environmental, operational safety and health protection legislation as well as the reduction of potential hazards, resource conservation, energy reduction and the reduction of CO₂ emissions.

Marketing

Risk management and emergency organization encompass the identification and handling of crises, risk and emergency situations. For this, it is necessary to create emergency plans in advance and to initiate appropriate measures in order to avert individual hazards and to restore all business processes and supply readiness as soon as possible after an emergency or incident. In this regard, a safety management structure serves as a preventive measure for maintaining factory safety.

Marketing

The marketing goal is to form, create and maintain a public company and product image. The basic module for this is the homogeneous design of the company image that is defined in the Maurer Söhne corporate design program.





Authorized Representatives in Quality Management

The general responsibilities and authorizations within the Maurer Group are defined in the job and task descriptions. The executive board has the overall responsibility for the QMS. A representative of the top management level has been appointed as quality manager to meet the demands for operational guidance and control of the system within the company.

Further, employees responsible for process and methods of operation have been appointed to monitor, evaluate and continually optimize individual QMS processes and methods of operation.

Top level management (executive board)

The top level management is responsible for defining and maintaining the company policy and all the goals and programs for all processes / methods of operation derived thereof for all departments. Further responsibilities of the executive board are to install and monitor the efficiency of the QMS, the definition of responsibilities and duties, the provision of necessary resources as well as integrating all the employees in the corporate quality policy.

At the same time, they ensure that all affected employees are informed of the modifications to the processes and methods of operation. They define the process goals with the quality manager and prepare the process measurement results for the regular management review meetings.

The top level management representative (quality manager)

The quality manager is the person in charge for the installation and maintenance of the process orientated QMS and its continuous improvement. As a prerequisite, he/she has to be able to define processes and methods of operation, appoint the responsible employees after consulting the top level management and prepare the evaluation of the process results for regular assessment (management review).

Furthermore, he/she has to have a sound knowledge of the existing management methods in order to employ them skillfully and individually where necessary.

Process owners

Project owners are responsible for steering and continually monitoring the assigned process. The representatives shall analyse the results of the audit reports and subsequently initiate and monitor the necessary improvement, i.e. corrective measures.

Frequently, an audit can be used to detect general problems or improvement demands so that these can be solved. During a QM-year, internal audits take place in order to control our application flow as well as external audits (certification or inspection). Auditors can be appointed from the company staff as well as from external personnel.

Employees

Our employees are the primary foundation of our QMS. With their sense of responsibility, their know-how, their motivation for improvement and their dedication to the customers and our company, they play a leading role in the achievement of our mutual goals and visions. Quality awareness begins with each individual. It must be our goal to recognize, actively communicate and integrate this at the appropriate time into all areas.

Auditors

Auditors regularly evaluate the status of the QMS with regard to conforming with norms and the carrying out of practical comparisons with the documented application flow guidelines (processes and methods of operation). Depending on the department, the auditors analyse the current state or determines a comparison between the original goal and the goals actually achieved.

Explanations of the Definitions

Process

ISO 9000 defines a process as follows: "A process is a set of correlated or interactive tasks that convert input to output." Therefore a process can be understood as – simply expressed – an interaction between people, machines, material and methods of operation that is aligned to render a supply of services or generate a certain finished product.

Each process can be split into a sequence of activities that are characterised through the transformation of measurable input into measurable results. As a result, the added value can be measured. We reproduce our processes according to process definitions that are used as requirement guidelines for our employees.

Documents

Documents have directive characteristics and are valid for longer periods of time. They have to be reviewed and approved and are subject to a modification procedure.

Records

Records are comprised of data that illustrate the evidence of conducted task or obtained results. A record can be put into writing or saved on an electronic data processing medium.

Forms

A form is a medium that is used to document a task or an obtained result. The empty form depicts only a document. However, the filled-out form, that documents a status becomes a record.

Modification Procedure

Version as of May 2011

The electronic form of this handbook constitutes the sole valid version. The printed form serves only as information. The user has to check the validity of the printed version.

This handbook shall be created and modified by the Maurer Söhne GmbH & Co. KG quality manager, and if applicable, with the enlistment of further employees or external consultants. The examination for system conformity shall be carried out by the quality manager. The approval of an updated document, the invalidation of preceding versions shall be carried out solely by the executive board.

This handbook will be made accessible to all employees in the company. Furthermore, it serves as evidence of the quality orientated attitude of our company for further interested parties (customers, public authorities, special interest groups etc.)

The quality manager signs as responsible entity for the distribution of the updated version, including the archiving of obsolete versions.





Maurer Söhne GmbH & Co. KG
Frankfurter Ring 193, D-80807 Munich/Germany
P.O. Box 440145, 80750 Munich/Germany
phone +49 8932394-0
fax +49 89 32394-338
info@maurer-soehne.de
www.maurer-soehne.com