

# LOPEZ INGENIERIA Y ASOCIADOS SA DE CV

# QUALITY MANAGEMENT



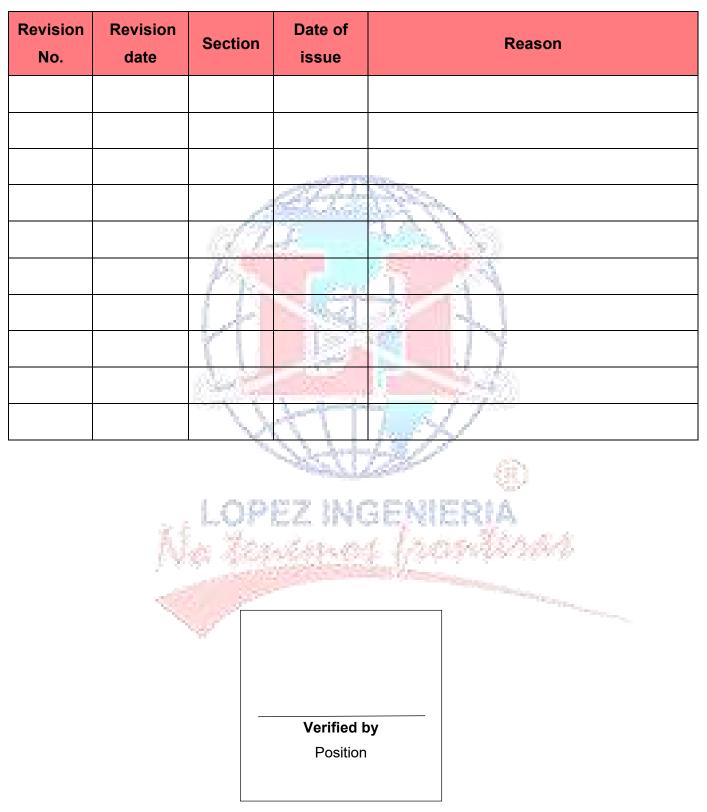


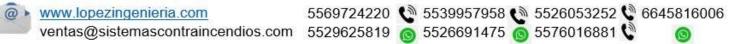






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# Introduction

### 0.1 General

The following manual for LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, is prepared based on the international ISO 9001 standard through which the quality management system is implemented, in order to guarantee the optimal functioning of the company's processes, monitor and supervise the actions, focusing the business vision to the fulfillment of the objectives through continuous improvement.

### 0.2 Process-based approach

The company LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, seeks the correct implementation of the processes in all the areas and projects that are carried out, in which the PHVA cycle approach is used to take preventive actions in the procedures, evaluate the risks and opportunities. The above, in order to plan, control and guarantee the improvement of quality.





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#### 0.3 Who we are

LÓPEZ INGENIERÍA is a Mexican company specialized in the development of engineering and projects for: Air: hot and cold, ventilation and mechanical extraction, fire systems, telecommunications and systems for saving electricity for the following sectors: Warehouses or factories, hospitals, hotels, shopping centers, agriculture and real estate.

We have years of experience, being recognized for understanding and adequately satisfying the needs and expectations of our takeholders; During our trajectory we have prioritized the inclusion of a corporate culture based on commitment and continuous improvement.

Our human talent is made up of a team of engineers experienced in the development of integral projects of automation and process control according to the real requirements of your company, coupled with this, the detection of specific technical training needs of users is contemplated, as well as the design and execution of training programs that guarantee the efficient use and exploitation of the systems and equipment implemented,

Key points of our quality proposal:

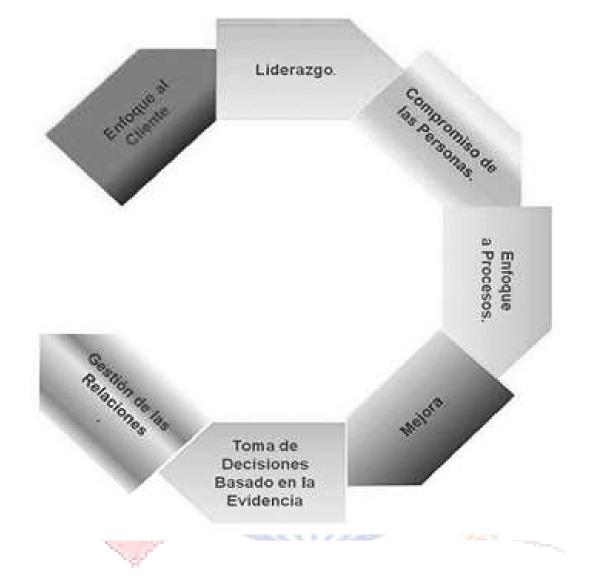
- Quality Policy. 1941-19-3
- Identification and improvement of key procedures, programs and documents.
- Work Instructions.
- Quality Manual.
- Quality Records.



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# 1. Purpose and field of application

Establish and understand the quality management system of LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, based on ISO 9001:2008, establishing a continuous improvement of processes having as starting points, the quality, mission, vision and institutional values of the company, in order to guarantee meeting and satisfying the needs, Requirements and expectations of our customers, consumers and / or users.

#### **Application** 1.1

The content of this manual was prepared based on the international quality management standards of ISO 9000, from which references are taken for the implementation of a quality management system in the company.





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# 2. Normative references

It is mainly based on the Mexican standard:

- NMX-CC-9001-IMNC-2008 (ISO 9001:2008) Quality Management Systems Fundamentals and Vocabulary, which is taken as a structure and starting point.
- Internal management standards of Lopez Ingeniería.

# 3. Terms and definitions

The terms and definitions of relevance for the construction and understanding of this manual will be defined, applying to the ISO 9001 standard: NMX-CC-9001-IMNC-2008, which requests to clarify the definitions of the keywords used throughout the manual and which are filters of the quality management system. In LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, we have internalized these concepts in terms of fostering an organizational culture based on continuous quality improvement.

- **Product:** It is the result of a given process in the organization.
- **Process:** Set of interrelated activities that are transformed to generate a result.
- **Procedure:** It is the step by step or the detailed explanation of how a certain process should be carried out.
- Senior Management: They are those people or group of people who are responsible for directing the company and are at the highest level of the organization chart.
- **Organizational context:** Business environment, combination of internal and external factors and conditions that can have an effect on the company, products, stakeholders or their investors.
- **Consumer:** That person or company that consumes goods and products.
- **Customer satisfaction:** The customer's perception of the degree to which their expectations have been met.



- **Interested party:** It can be understood as that group of people or person that can affect the operation or capacity of a company.
- **Documented information:** It is the proper documentation of the information, in terms of the processes, certifications, organization and planning of the company.
- Document traceability: Keep track and history in terms of documentation to find and efficiently dispose of information and validate the trajectory of a process.
- Nonconformity: Failure to comply with a requirement of the standard or legal requirement.
- Corrective action: These are those actions that are carried out in order to eliminate a nonconformity and mitigate the occurrence of it.
- Audit: It is that process through which the validation and monitoring of something specific is carried out with the aim of collecting information and evaluating compliance with regulations or generality.
- Audit plan: These are those activities broken down in order to carry out an audit.
- **Review:** Checking and evaluating the objectives they want to achieve.
- Verification: Review of the results obtained in the implementation of a process to confirm if it meets the objectives of the system.
- Validation: Validate the applicability of the product or service carried out by the organization.



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# 4. Quality management system

#### 4.1 General requirements

At this point, LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, carries out the definition, documentation and implementation of the quality management system, through which the guidelines are clarified to guarantee continuous improvement and quality within the processes, procedures, the entry and exit of goods and services, the proper documentation and the traceability of the same, in order to meet the expectations of our stakeholders, while complying with Mexican regulations.

The quality management system according to the ISO 9001: NMX-CC-9001-IMNC-2008 standard must comply with the following guidelines:

- A. Determine the processes necessary for the quality management system and its application throughout the organization.
- B. Determine the sequence and interaction of these processes.
- C. Determine the criteria and methods necessary to ensure that both the operation and control of these processes are effective.
- D. Ensure the availability of resources and information necessary to support the operation and monitoring of these processes.
- E. Track, measure when applicable and analyze these processes.
- F. Implement the necessary actions to achieve the planned results and the continuous improvement of the processes.

All of the above must be built according to Mexican regulations.



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With the previous model, we try to achieve coherent and efficient results to meet the needs of our customers, with interrelated processes that work as a general system and based on the continuous improvement cycle:

- Plan: We establish the objectives and processes that are necessary to achieve the proposed objectives, having as support the policies of the organization, the Mexican regulations and the requirements of the interested parties.
- Do: We carry out the processes.
- Verify: We carry out audits and follow-ups to the different processes and procedures that are being carried out and identify if they are being implemented with respect to policies or objectives.
- Act: We take actions to solve Nonconformities and correct processes to continuously improve their performance.



### 4.2 Documentation requirements

### 4.2.1 General

We have a duly documented quality management system, on which we rely to have a history, a starting point and a projection of what we want to achieve, and through which we guarantee the verification and control of the procedures.

The documentation of the quality management system is prepared by:

- Quality policies and objectives: The goals of the organization are projected, nested to the established quality policies, both organizational and international QMS policies.
- Quality manual: The company's quality management system is described.
- Procedures and records required by the Mexican standard.
- Documents and records that guarantee the PHVA cycle.

### 4.2.2 Quality Manual

The organization prepares the manual for a successful implementation of the quality management system and its documentation, through which the scope, documented procedures, processes and interrelation of processes for continuous improvement are reflected.

The quality manual of LOPEZ INGENIERIA Y ASOCIADOS SA DE CV includes the following content, which is structured according to the ISO 9001 standard: NMX-CC-9001-IMNC-2008:

- Definitions of the keywords that will be used in the manual and through which the efforts to implement them and translate them into the organizational culture will be focused.
- Object and field of application with respective generalities.
- The normative references and through which the quality management system will be based.
- The terms and definitions of quality that make up the QMS.
- The quality management system, documentation and records.



- The responsibility of the management, which reflects the commitment of the management, the focus on the client, the quality policy, the objectives, the generalities, the input information and review of results.
- Resource management is defined, in which various aspects of the organization, human talent, infrastructure, work environment are evaluated.
- Design, development, planning, realization of the product and communication with the client.
- Finally, the measurement, analysis and improvement, for the evaluation, monitoring and measurement of procedures and the taking of preventive actions.

### 4.2.3 Control of documents

The documents that are required for the quality management system of LOPEZ INGENIERIA Y ASOCIADOS SA DE CV are controlled and registered as established by ISO 9001:2008, which establishes the following controls:

- a) Approve the documents as to their suitability before their issuance,
- b) Review and update documents when necessary and approve them again,
- c) Ensure that changes and status of the current version of documents are identified,
- d) Ensure that relevant versions of applicable documents are available at points of use,
- e) Ensure that documents remain legible and easily identifiable,
- f) Ensure that external source documents, which the organization determines are necessary for the planning and operation of the quality management system, are identified and that distribution is controlled,
- g) Prevent the unintentional use of obsolete documents, and apply proper identification if they are kept for any reason.

### 4.2.4 Control of quality records

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV defines a system to control the records required by the quality management system, both those defined by the ISO



9001:2008 standard, and the records requested by the interested parties. These records are kept to keep evidence of the conformity of requirements and the correct functioning of the quality management system.

This system contains the identification, storage, retrieval, protection, temporary retention, retention and disposition of records.

#### **Retention of records**

In the process of controlling the organization's quality records, the satisfaction of regulatory and consumer requirements is guaranteed.





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# 5. Management responsibility

#### 5.1 Management commitment

The management of LOPEZ INGENIERIA Y ASOCIADOS SA DE CV is highly committed to the development and improvement of quality management, through:

- Communicating to the entire organization the importance of meeting legal, regulatory and customer requirements.
- The dissemination of the quality policy.
- The establishment of quality management objectives.
- Conducting reviews by management.
- Ensure resource availability and implementation.

#### 5.1.1 **Process efficiency**

The management reviews the continuous improvement procedure constantly, where the correct execution of the processes and the quality management of the same are prioritized, in order to ensure efficiency and effectiveness in the system.

#### 5.2 **Customer focus**

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV directs all its efforts to make an optimal offer of products, services and experience for the client, fulfilling their requirements, needs and expectations, while including legal and regulatory requirements and an after-sales service to monitor, supervise and generate satisfaction of the interested parties.



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#### 5.3 Quality policy

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV is a company specialized in the development of engineering and projects for: Air: hot and cold, ventilation and mechanical extraction, fire systems, telecommunications and systems for saving electricity for the following sectors: Warehouses or factories, hospitals, hotels, shopping centers, agriculture and real estate. In each of the services and products we offer we have an approach oriented to quality and sustainable maintenance, through the optimization of resources, effectiveness in installation, customer training on the use of systems, measurement and review of facilities and infrastructure and provide guarantee.

Both the quality policy and the quality management system go hand in hand with the company's objectives, mission, vision and organizational culture, in order to interrelate and promote continuous improvement and the taking of corrective and preventive actions.

Our mission is to be the preferred Company For our customers, dealers and suppliers, providing leadership in the industry, products with a high value, services and solutions based on knowledge engineering in the calculation, selection, supply, installation and advice on pumping equipment for movement of air conditioning equipment and fire systems, complying with quality standards, Security and service for complete customer satisfaction. For our Employees, creating a satisfactory work environment, where effort is recognized, ideas are valued and individual rights are respected.

Our vision is to be recognized as one of the leading providers of facilities engineering solutions nationwide, with strong ethical and environmental values, offering high quality products and services.

Our values focused on quality and customer satisfaction:

• Customer and result orientation: to guarantee the permanence of the company, the future service to customers and the stability of employees.



- Empowerment of human capital: the main resource of LOPEZ INGENIERIA is its employees, their experience and their professional and technical knowledge.
- Their personal and professional development is a priority, and respect and trust in them a fundamental basis.
- Customer satisfaction: it is a guarantee of success.
- Commitment to innovation: both technological and management.
- Quality: it is determined by all team members, internal and external, and must be driven by the philosophy of adding value to customers.
- Teamwork: transparent communication, availability, cooperation and constant effort.





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#### Planning 5.4

#### 5.4.1 Process efficiency

The quality objectives are defined by the management of LOPEZ INGENIERIA Y ASOCIADOS SA DE CV and are found in the definition of quality, safety and environmental policies. These objectives include the management plan that have the purpose of responding to the needs and expectations of customers so that they are achievable in defined periods of time, are measurable and consistent with the quality policy.

### 5.4.2 Quality Management System Planning

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, considers that the principles are essential for the fulfillment of the requirements of the interested parties and continuous improvement.

- Internal and External Communication: We communicate everything in a sincere, simple, accurate, timely and personalized way.
- Creativity and Innovation: We anticipate the needs and desires of our customers, colleagues and shareholders, to create new and profitable forms of satisfaction.
- Compliance: We deliver what was agreed on time, exceeding expectations.
- Thoroughness: We do everything exactly and finish precisely what we commit to, taking care of the details.

It remains seeking excellence in products and services, based on the requirements of the international quality standard and compliance with quality objectives.

The organization is composed of a highly competitive group through continuous improvement in all the processes of the organization with which it manages to remain one of the pioneers of the sector.







#### Responsibility, authority and communication 5.5

#### 5.5.1 Responsibility and authority

The management of LOPEZ INGENIERIA Y ASOCIADOS SA DE CV defines the functions, responsibilities and communication of each role with their respective authorities, for their interrelation the organization.

This information is duly documented in the following documentation:

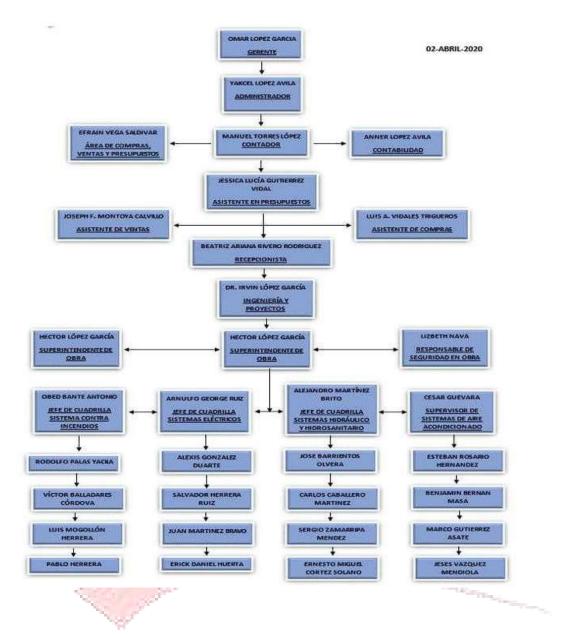
- Organizational chart, in which the responsibility available to each position or area is hierarchically structured, hence a starting point is taken to take corrective actions and that these are informed quickly about the relevant personnel, evaluating compliance with the requirements in the products and / or services offered.
- Manual of definition of functions, as its name implies, defines the functions of the personnel of LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, which are the attitudes and aptitudes that human talent must have according to the position they hold in the organization and according to the level of responsibility they have.



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#### 5.5.1.1 **Organizational chart**





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### 5.5.2 Management representative

The management of LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, assigned the Administrator as representative of the management, which is responsible for ensuring responsibilities and authorities, defining them and has the authority to:

- Ensure that the necessary processes for the quality management system are established, implemented and maintained.
- Inform senior management about the performance of the quality management system and any need for improvement.
- Ensure that awareness of customer requirements is promoted at all levels of the organization.

#### 5.5.3 Internal Communication

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, ensures communication between the different levels and functions of the company, regarding the processes of the quality management system and its effectiveness, through the following structure (see figure 5.5.3.1):



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### 5.5.3.1 Quality Management Communication Plan

Concept	Periodicity	Addressee	Responsible	Middle
Quality Policy	<ul> <li>Continuously</li> <li>Training of new human talent</li> </ul>	<ul><li>Employees</li><li>Stakeholders</li></ul>	Quality Manager	<ul><li>Web page.</li><li>Staff training.</li><li>Documentation.</li></ul>
Quality objectives	<ul> <li>Continuously</li> <li>Training of new human talent</li> <li>Establishment of semester objectives.</li> </ul>	Employees     Stakeholders	Quality Manager	<ul> <li>Web page.</li> <li>Staff training.</li> <li>Email.</li> <li>Voice to Voice.</li> <li>Internal publications.</li> </ul>
Responsibilities and authority	<ul> <li>Continuously</li> <li>Training of new human talent</li> <li>Modification in processes</li> </ul>	• Employees	Quality Manager	<ul> <li>Management communication.</li> <li>Staff training.</li> </ul>



#### 5.6 **Management review**

#### 5.6.1 General

At planned intervals, the management of LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, reviews the quality management system, to ensure its convenience, consistency, adequacy and effectiveness. During the review, opportunities for improvement are detected and the need to implement necessary changes according to validated nonconformities, including quality policies and quality objectives to continuously improve processes.

### 5.6.2 Input information for the review

The input information with which the review and subsequent analysis will be carried out to identify possible opportunities will be taken based on:

- Results and reports of internal and external audits.
- Feedback received from customers and stakeholders.
- Claims made by customers.
- Validation of incidents or occurrences internally.
- Process performance and product compliance.
- The status of corrective and preventive actions.
- Analysis of potential and carried out failures of the operation and their impact on quality, safety and the environment.
- Feedback from internal customers (Human talent).
- Education and training plan.
- Quality policy and objectives.
- Follow-up actions of previous reviews made by management.
- Internal or external risks that may affect in some way the normal operational and logistical functioning of the organization







#### 5.6.3 Results of the review

Following the review of the input information, the management and the representative of the management of LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, we proceed to initiate the actions and decision-making associated with:

- The continuous improvement of the quality management system, its • processes and its effectiveness.
- The improvement of the product in relation to the customer's requirements.
- Resource needs.
- Increase customer satisfaction.

During the validation of the results, the responsibilities and authority of the different positions are taken into account for the agile identification of the location where the need for possible improvement is located, and through communication and training plans, the solutions or corrective actions that give rise to what is identified are taken into account.



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## 6. Resource management

#### 6.1 **Resource Supplies**

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, is committed to determining and providing the necessary resources to:

- Implement and maintain the quality management system and continuously improve its effectiveness.
- Increase customer satisfaction

#### 6.2 Human resources

#### 6.2.1 General

The management of LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, ensures that the personnel who perform work that may affect the conformity or fulfillment of customer expectations and product requirements, is competent based on applicable education, continuous training, practical and technical skills and appropriate experiences.

The real importance of the human resources of the organization lies in having the human talent, who possesses the right combination of knowledge and skills, who are in the right place and at the right time to perform the necessary work. The company is composed of human beings who come together for mutual benefit, and works by the quality and behavior of the personnel that make it up.

### 6.2.2 Competence, training and awareness

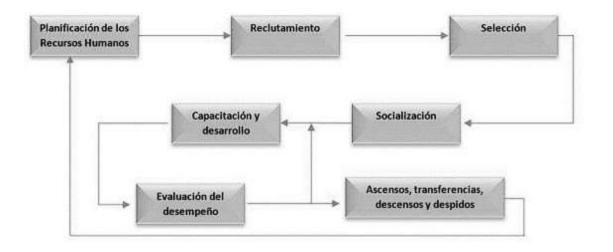
LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, determines the necessary competence of the personnel to carry out the works that may affect or directly affect the conformity of the requirements of the product, when required, applies and provides actions and trains and manages the training of the personnel to complement the necessary competence, subsequently evaluates the effectiveness of the actions carried out to ensure and guarantee that the personnel is properly oriented and has the knowledge and optimal skills for the development of its activities and the fulfillment of its own and organizational quality objectives; Once the





aforementioned is done, the proper documentation and registration of the training, training and education provided is carried out to have a history and follow-up of lessons learned and thus carry out continuous monitoring of each human resource.

The administration of the human resources of the organization is managed as follows:



LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, also has objectives oriented to human resources:

- Increase the budget for hiring more staff, payment of benefits, incentives, etc.
- Creation of more jobs in specific areas of the organization; to be able to satisfy • and offer a better. ちょうちょうきょう ひょうちょう
- Choose candidates for jobs qualified enough to fulfill the activities and obligations required for each job that is unemployed.
- Improve job performance and develop the skills needed for future work activities.





### 6.3 Infrastructure

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, determines and provides the necessary infrastructure to achieve compliance with product and customer requirements. The infrastructure includes the following:

- It has the necessary workspace for the correct functioning and development of the functions and processes that are exercised, through the offices that are in the company, in which the activities related to the planning of the processes and the activities to be developed are mainly carried out.
- It has the necessary machinery, technological, physical and digital equipment through software, hardware, safety implements, material, and support tools to carry out the execution phase of the projects carried out by the organization according to the conformities and needs determined for the work to be done.
- There are tools for guidance, maintenance and security after the development and execution of the project, through which customers can guarantee the correct functioning of the various systems installed and through which they can contact the organization if they require additional support.

The management has the aforementioned since it wants to guarantee the optimal functioning of the services and products that are provided, through quality, continuous improvement and technological, technical and operational development of the various processes.

### 6.4 Work environment

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, identifies, evaluates and manages the different factors related to the work environment, whether physical, human or external factors, which may affect the requirements of the product, in order to ensure compliance of the quality management system.





# 7. Realization of the product

### 7.1 Planning the realization of the product

During the planning of the processes for the realization of the product, LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, is consistent with the requirements of other processes of the quality management system; During the planning of the realization of the product, the following is determined:

- The quality objectives and requirements for the product.
- The need to establish processes and documents, and provide productspecific resources and acceptance.
- The activities of validation, verification, monitoring, measurement, inspection and specific tests so that the product has customer acceptance.
- Have the necessary records to provide the necessary confidence and evidence that the realization processes and the final product comply with regulatory, legal, environmental, etc. requirements.

### 7.2 Customer-related processes

### 7.2.1 Determination of product-related requirements

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV determines the requirements specified by the client, including the requirements for delivery activities and those subsequent to it, the requirements not established by the client but necessary for the specified use or for the intended use when known, complying with the legal and organizational requirements that are taken into account and that are considered relevant to the project.

### 7.2.2 Review of product-related requirements

The organization describes the methodology used to review and record the requirements of the product, ensuring that the requirements for the product are well defined, that the requirements of the client are validated and confirmed before acceptance, that the doubts or differences that exist between the requirements of the contract or order and those previously expressed are duly clarified, and comply





with both the legal requirements and those applicable to the product and those that are subsequently considered according to the service to be provided.

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV assures that it will have the relevant documentation and will modify it in case product requirements are changed, and in the same way the personnel will consciously correspond to said modifications.

### 7.2.3 Communication with the client

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV identifies and implements the necessary provisions for communication with customers effectively, which are related to:

- Product information.
- Consultations, contracts or attention to orders, including modifications.
- Customer feedback, including complaints or claims.

In the last provision, starting points are established for non-conformities according to the validations of the claims made by the clients.

#### 7.3 Design and development

As established by both ISO 9000:2000 and ISO 9001: NMX-CC-9001-IMNC-2008, LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, the definition of design and development would be valid as long as there is a process that performs the transformation of input requirements with certain characteristics in a product, good, service or system.

Taking into account the above, this section would not be entirely applicable to the organization, because the design and planning of the product are provided according to the requirements of the client and the project to be carried out; An intermediation of the interested parties, the client and the company is carried out to collaborate and coordinate in the industrialization and elaboration of the design of the product and the pieces that will be necessary for its development. Subsequently, the contract is agreed through which the planning, execution, verification and monitoring of the project will be carried out.



In case of a modification in a requirement, this would be done taking into account the request of the client, who is always the priority of the organization and the applicability of the process, the same client, is the one who validates and approves the changes in the functionalities, LOPEZ INGENIERIA Y ASOCIADOS SA DE CV will carry out the industrialization and focus the operation always taking into account the quality management system.

#### 7.4 Shopping

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, ensures that the purchased product meets the specified purchase requirements. It is done through the purchasing process, through which the different suppliers are supervised to identify which is the most suitable for the service and project to be executed, these must comply with the standards of quality, environmental and safety management standard; When selecting them, the ability to meet the requirements and needs of the project is also taken into account, supplying efficiently, with raw material and quality services and complying with legal and organizational requirements.

The organization meets criteria for selection, evaluation and reevaluation, as well as records of the results of these evaluations are maintained to have an overall picture and thus make decisions efficiently and prevent future nonconformities.

The purchasing area has the following objectives:

- Analyze supplier shipments.
- Maintain efficient relationships with all suppliers and choose the most competitive.
- Acquire materials and equipment according to the Engineering with the ideal quality for projects and works.
- Perform periodic evaluations of compliance with international standards, Mexican regulations and requirements of the organization's clients.







### 7.5 **Production and provision of the service**

#### 7.5.1 Control of production and service provision

According to ISO 9001: NMX-CC-9001-IMNC-2008, LOPEZ INGENIERIA Y ASOCIADOS SA DE CV plans and carries out the production and provision of the service under controlled conditions.

The controlled conditions contain:

- The availability of information describing the characteristics of the product.
- The availability of work instructions.
- The use of appropriate equipment.
- The availability and use of monitoring and measurement equipment.
- The implementation of monitoring and measurement.
- The implementation of release, delivery and post-delivery activities of the product.

The above information is documented in the portfolio of services of the organization, in which the different systems that are installed according to the requirements of the clients, their needs and expectations are evidenced, also, prior to the realization of the project, generalities are sent in which the availability, the appropriate use of the equipment are manifested, the phases or activities that will be carried out before, during and after the end of it.

### 7.5.2 Validation of production processes and service provision

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV performs the validation of the processes of service provision and production and establishes measures to achieve the planned results through the correct functioning of the processes related to this. In the validation the following measures are implemented:

- The classification of processes.
- The classification of teams and personnel.
- The use of procedures and the use of methods.
- The requirements of the records.





• Revalidation.

#### 7.5.3 Identification and traceability

The organization identifies the product by appropriate means, throughout the realization of the product, and evidences it documentarily regarding the monitoring and measurement requirements.

When traceability is a requirement, LOPEZ INGENIERIA Y ASOCIADOS SA DE CV controls and registers the unique identification of the product and maintains the records.

#### 7.5.4 Customer Ownership

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV carries out all projects with goods that are not owned by the client, because most are goods provided by the organization for the execution of the processes, and the other resources are provisioned by the suppliers and have the respective guarantee. Likewise, the goods that are owned by the client supplied for use or incorporation into the project if applicable are identified, verified, protected and safeguarded. The methodology is counted in case any good that is owned by the client presents a loss, this must be informed immediately to the client and the records will be kept.

#### 7.5.5 Service Preservation

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV ensures the preservation of the product and the raw material used, during the internal process, during the execution of the projects and the delivery of the final product. Through the quality management system, it guarantees the identification, handling, packaging, storage and protection of the product, offering guarantee and having the appropriate personnel to solve the non-conformities that may arise later.

Throughout the process, the organization carries out a process of packaging, testing, monitoring and follow-up of the installed systems, implementing the optimal resources according to the requirements that are had and additional after-sales service account for constant customer satisfaction.



#### 7.6 Control of monitoring and measuring equipment

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV establishes and determines theprocess and system to calibrate, verify, adjust and perform maintenance to the measurement, inspection and testing equipment in order to demonstrate the conformity of the service and the final product with respect to the requirements established by the client, and their needs and expectations.

The organization has the necessary computer programs, both software and hardware suitable for evaluating and testing processes. These are checked to demonstrate that they are able to demonstrate that they are able to verify the acceptability of the product before starting its use and that if necessary, confirm again.





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# 8. Measurement, analysis and improvement

### 8.1 General

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV plans and implements the monitoring, measurement, analysis and improvement processes necessary to:

- Demonstrate conformity with product requirements.
- Ensure compliance of the quality management system.
- Continuously improve the effectiveness of the quality management system.

The organization develops reports based on information received from various sources (see section 5.6.2) for the periodic analysis of the quality management system and validate its efficiency and effectiveness, from this, we proceed to decision-making and the execution of preventive actions, in order to maintain continuous improvement of processes, that these are interrelated and communicated with human talent.

#### 8.2 Monitoring and measurement

#### 8.2.1 Customer satisfaction

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, performs the follow-up and monitoring of the information related to the perception of the client regarding the fulfillment of the requirements by the organization and its final satisfaction with respect to the initial expectations, this section is given high priority in the quality management system.

### 8.2.2 Internal audit

In the organization it carries out internal audit processes related to compliance with the quality management system and evaluate how it is in all aspects, for this, the management is based on the following:

• The audit is carried out in accordance with the requirements established in the quality management manual, the Mexican standard and the international standard ISO 9001:2000.



- Perform internal audits periodically (quarterly).
- Assess whether it has been implemented and maintained effectively.
- Implementation of human resources and recognition of the quality objectives of the organization.
- The quality manager is responsible for planning audits.

#### 8.2.3 Monitoring and measurement of processes

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, applies the appropriate methods for monitoring the processes of the quality management system. The methods demonstrate the ability to demonstrate the ability of processes to achieve planned outcomes. In case these are not achieved, validation, implementation of corrective actions and decision-making for compliance of the requirements are carried out.

#### 8.2.4 Service monitoring and measurement

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, applies the appropriate methods for the measurement and monitoring of the characteristics of the services offered and for the validation of compliance with the requirements. The information related to the realization of the product/service in relation to the provisions is found in section 7 of this manual.

### 8.3 Control of the non-conforming product or service

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV has a procedure for the control of non-conformities duly documented, where the controls, responsibilities, authorities, and corrective actions related to products or services not in accordance with the requirements are determined.

Non-conforming products or services are treated as a priority in order to have a quality management system, improvement actions are taken, to eliminate the non-conformity detected, and again it is subjected to another verification to demonstrate that it was solved and verify its conformity with the requirements.





### 8.4 Data analysis

In order to demonstrate the correct functioning and effectiveness of the quality management system of LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, the necessary or appropriate data are determined, collected and analyzed to determine where and how the continuous improvement process can be carried out and where it is necessary to implement it more quickly.

The data is used to provide information about:

- Customer satisfaction.
- Compliance with requirements.
- The characteristics and trends of processes and products.
- Opportunities for improvement to take preventive actions.
- Suppliers.

The representative of the management is in charge of carrying out the review and analysis of the data to later communicate it to the directives, where through indicators, graphs, relationships, tables and statistics, the current state of the quality management system is evidenced. Based on the information analyzed, actions are outlined in order to correct nonconformities and direct the organization to meet the objectives, Mexican regulations and customer requirements.

### 8.5 Improvement

### 8.5.1 Service monitoring and measurement

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, continuously improves the effectiveness of the quality management system, taking into account the policy, the quality objectives, the results of the audits, the correct analysis of the data, the review of the records and the taking of corrective and preventive actions by the management.

### 8.5.2 Corrective action

The management of LOPEZ INGENIERIA Y ASOCIADOS SA DE CV, is responsible for making decisions in a timely manner, to carry out corrective and preventive



actions in order to identify and eliminate non-conformities so that they do not happen again.

The organization has the documented procedure in place that defines the requirements for:

- Review nonconformities.
- Review of customer complaints and claims.
- Determine the causes of nonconformities.
- Evaluate the need to adopt preventive actions to ensure the non-occurrence of nonconformity.
- Determine and implement the necessary actions.
- Record the acquired results of the actions taken.
- Review the effectiveness of corrective actions through follow-up and monitoring of the process in which the nonconformity occurred.

#### 8.5.3 Prevention

LOPEZ INGENIERIA Y ASOCIADOS SA DE CV takes preventive actions by identifying potential nonconformities and their subsequent elimination and registration to prevent them from happening again. Decisions are made according to the ISO 9001: NMX-CC-9001-IMNC-2008 standard, which indicates that preventive actions must be appropriate to the effects of potential problems.

# 9. Bibliography

The manual is based on the following document which provides the structure of ISO 9001:2008 and its requirements.

• ISO 9001: NMX-CC-9001-IMNC-2008: Quality management systems – requirements – Mexican Institute of Standardization and Certification AC.

# **10.** Concordance with international standards

This standard is fully in line with the international standard ISO 9001:2008. *Quality management systems – requirements.*