



INDUSTRIES

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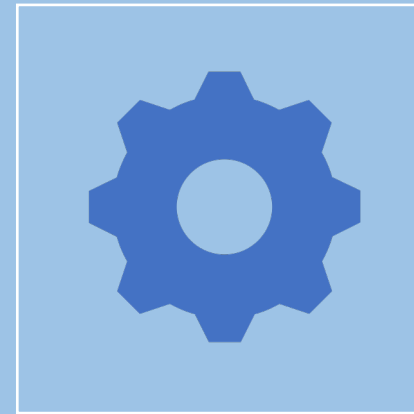
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# INTRODUCTION



Stock Parts



Lark

# LARK INDUSTRIES



- Lark Industries is an industrial machine shop located in El Paso, Texas.
- They also service businesses located in Juarez Mexico.
- Lark's shop services and repairs small pieces but also fabricates complex and precise parts.
- They are providers of professional, high quality and cost-conscious general industrial machining.
- Some of their objectives are to minimize wear, corrosion, and downtime, to repair worn components and misaligned parts cost-effectively, and to quickly deliver completed products.

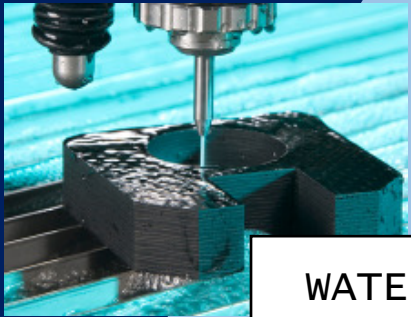
# LARK INDUSTRIES



AUTOMATION



WELDING



WATERJET



MEDICAL

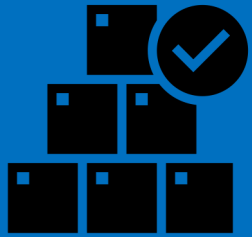
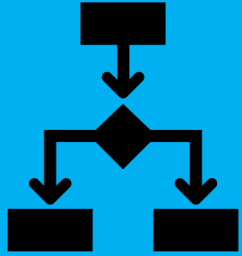
- Lark Industries provides services in automation, welding, waterjets, and medical fabrication.
- Recently, Lark Industries decided to start working for the Oil Industry as well.
- Shifting to the Petroleum Industry requires different types of certifications, quality controls, and oil specific standards.
- Oil and Gas Industry parts are complex, made from high-strength materials. The company is willing to make the necessary changes in order to meet the industry's requirements and provide parts that are precise, and resistant.

# TMAC



- Texas Manufacturing Assistance Center (TMAC) counts with offices across Texas with the intention of helping companies “Work Smart and Grow Smart”.
- Its expert consultants work with different organizations to help them develop and improve their processes and products.
- They assist multiple companies with efficient prototyping and research regulatory assistance so that they can delight all their customers and have long-term success in the market.

# ISO 9001



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Adopting the International Organization for Standardization (ISO) quality management system is a strategic decision that thousands of organizations have made with the purpose of improving their performance and be capable of providing consistent products and services that meet the customer needs and requirements.

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This International Standard promotes the adoption of a process approach when developing and improving the effectiveness of a system.

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However, this standard is GENERIC

# ISO 29001



**Petroleum, petrochemical, and natural gas industries — Sector-specific quality management systems — Requirements for product and service supply organizations:**

- It defines quality management system requirements for product and service supply organizations to the petroleum, petrochemical, and natural gas industries.
- This document is written as a supplement to ISO 9001:2015. The supplementary requirements and guidance to ISO 9001:2015 have been developed to manage supply chain risks and opportunities associated with the petroleum, petrochemical, and natural gas industries and to provide a framework for aligning requirements with complementary standards employed within the industries.



# American Petroleum Institute SPEC

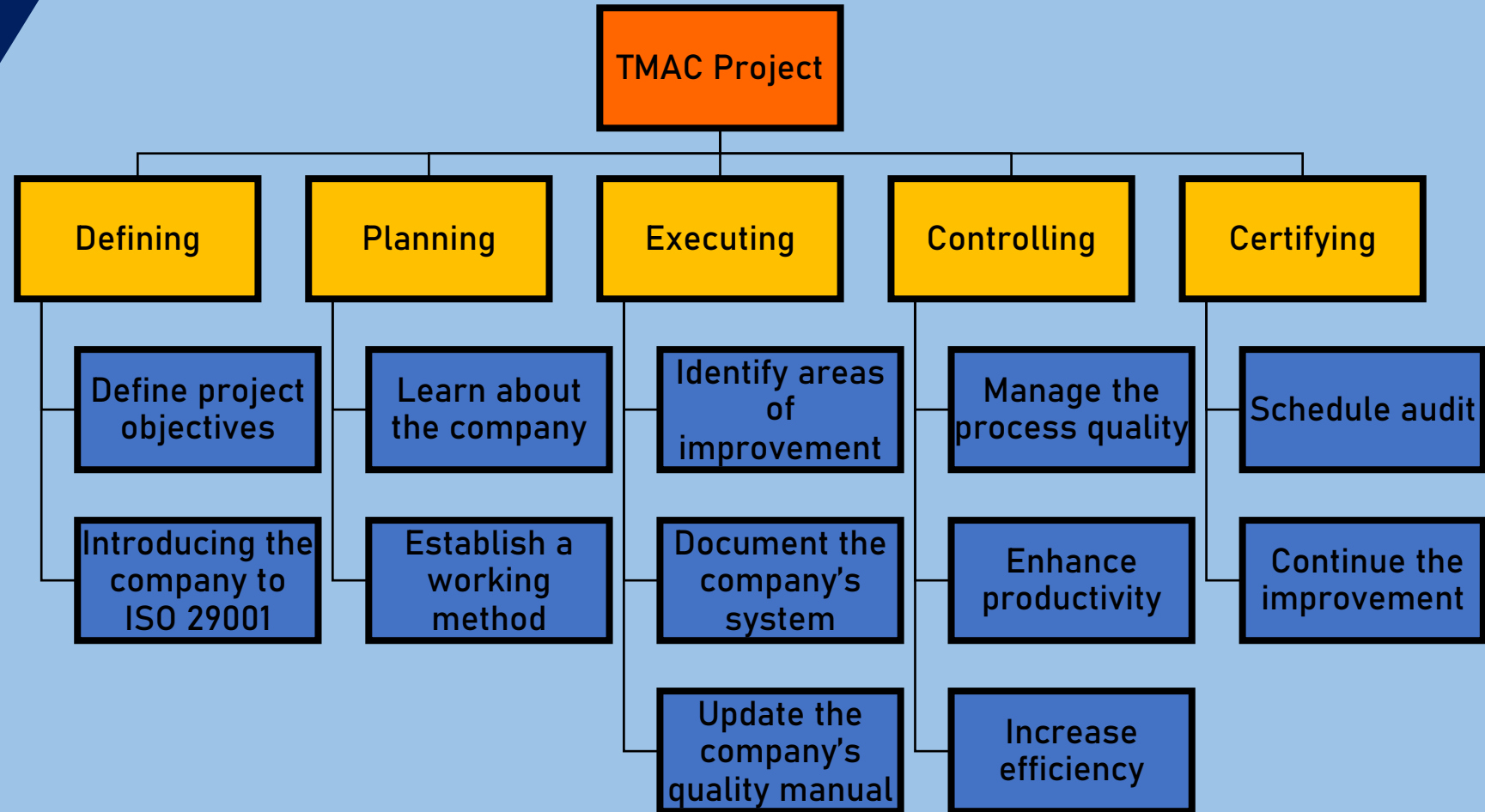
## Benefits of API Spec. Q1 Certification

- ♦ Reduce cost
- ♦ Improve operational efficiency, productivity, and product reliability
- ♦ Customer satisfaction - meet customer requirements
- ♦ Access to new markets
- ♦ Increase market share and sales
- ♦ Meet statutory and regulatory requirements
- ♦ Increased environmental benefit

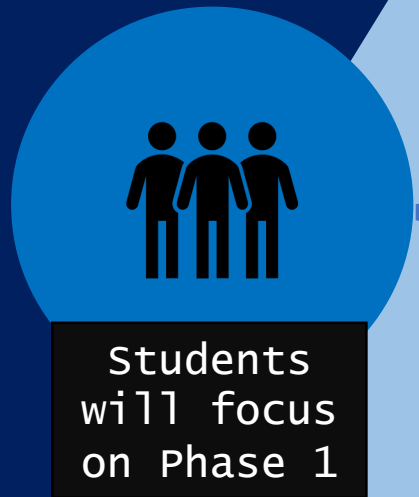
- In the oil and gas industry, certification to API Spec. Q1 remains one of most prestigious certifications in the industry. Q1 certification demonstrates the robustness of your quality management system by building upon ISO 9001 requirements to create a more risk-based approach to quality management.
- While ISO 9001:2015 addresses the subject of risk and other critical QMS areas, in addition to these requirements, Q1 certification motivates manufacturers to further institute controls for:
  - Risk Assessment and Management
  - Contingency Planning
  - Management of Change
  - Supply Chain Management
  - Employee Competency and Training
  - Quality Manual and Corresponding Documented Procedures



# Process Development



# Process Development



## Phase 1

Documentation of existing processes and establishing management commitment.

## Phase 2

Implementation of procedures and work instructions throughout the organization, creation of objective evidence of conformance, monitoring and measuring of system.

## Phase 3

Continued implementation of core and support processes and the creation of a risk analysis and mitigation program.

## Phase 4

Monitoring activities of an implemented quality management system (conducting internal audits and establishing a reporting methodology to top management)

# ASSIGNMENTS



BRENDA

## Scope of the QMS

- What: Components for oil pumps
- How: Value Streams
- What do they make: actual parts, part numbers



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## Quality Policy

- What is the intent of the company?
- What is their position in terms of quality?
- Cost of quality: avoid rework, scraps, reputation loss

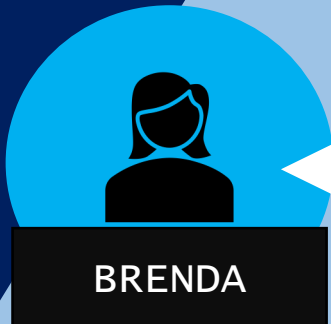


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## Quality Objectives

- Continual Improvement
- Review effectiveness of all actions
- Set goals for customer satisfaction and production

# SCOPE



BRENDA

- The scope of the QMS is critical because it defines the scope of the QMS within the company's operations, as well as any exceptions to the ISO 9001 requirements.
- The International Standard for Petroleum and Gas Industries specifies that the scope of the QMS must demonstrate the company's ability to provide products in a consistent manner that not only meet customer expectations but also statutory and regulatory requirements.
- The scope needs to enhance customer satisfaction by stating the company's priority to effectively apply a process of improvement and the proper quality principles on each one of their processes.

# QUALITY POLICY



- According to the ISO 29001 the company shall implement and maintain a quality policy that is appropriate to the purpose of the organization that supports their strategic decision and their commitment to satisfy all applicable requirements. It also must provide a framework to later set the quality objectives.
- The policy statement is where the company declares what is their intent and their position in the industry with the products and services they develop.
- With a high cost of quality Lark Industries desires to enhance customer satisfaction through conformance and meeting the requirements and specifications of the industry.

# OBJECTIVES



- According to ISO 29001 the requirements of the company shall reflect the opportunities of improvement and implement all necessary actions to meet the requirements of the customers.
- This includes statements where the company declares their goal of improving their products to address future needs and meet customer expectations, their compromise of correcting defects and preventing undesired mistakes, as well as their mission to have a constant improvement of their quality management system.
- The standard requests the company to establish as part of their objectives that they shall take action, control, and correct a nonconformity, deal with the consequences, and determine its causes

# Conclusion

- A second and final assignment was given to the team of UTEP students in which they needed to compare the standard of ISO 9001 to different AS9100 standards.
- Developing the manual for Lark Industries to jump into the Oil and Gas Industry required a lot of research and understanding the different quality standards explained throughout this report.
- The team's efforts were concentrated on the phase of the project that required acquiring knowledge on how a Quality Management System works and how a company can use it to properly work inside a specific industry that requires specific guidelines, processes, and principles.
- The team's participation on the project resulted in designing the scope, the quality policy, and the quality objectives that will guide Lark Industries into meeting the specifications of the Petroleum Industry while they enhance their customer satisfaction, improve their processes and quality systems, and gain the confidence of stakeholders and customers.



Thank You !