



CORRELATION MATRICES ISO 29001:2020 RELATED TO ISO/TS 29001:2010, API Q1 (9TH ED) & API Q2 (1ST ED)

INTRODUCTION

ISO 29001:2020, *Petroleum, petrochemical and natural gas industries — Sector-specific quality management systems — Requirements for product and service supply organizations* supersedes ISO/TS 29001:2010. In addition to ISO 29001, several economic operators either apply or require that their suppliers maintain a quality management system conforming to API Spec Q1, *Specification for quality management system requirements for manufacturing organizations for the petroleum and natural gas industry* (9th edition, June 2013) or API Spec Q2, *Specification for quality management system requirements for service supply organizations for the petroleum and natural gas industries* (1st edition, December 2011). ISO 29001:2020 is designed to be equivalent to API Spec Q1 and API Spec Q2.

RATIONALE SUPPLEMENTARY REQUIREMENTS

ISO 29001:2020	ISO/TS 29001:2010	API Spec Q1 (9 th ed)	API Spec Q2 (1 st ed)
4 Context of the organization			
4.1 Understanding the organization and its context	4.1 Quality management system – General requirements	4.1.1 Quality management system – General	4.1.1 General – Quality management system
	5.6.2 Management review – Review input	6.5.2 Management review – Input requirements	6.5.2 Management review - Input requirements
4.2 Understanding the needs and expectations of interested parties	4.1 Quality management system – General requirements	4.1.1 Quality management system – General	4.1.1 General – Quality management system
	5.5.3 Responsibility, authority, and communication – Internal communication	4.1.5 Quality management system – Communication	4.1.5 General – Communication
	5.6.2 Management review – Review input	6.5.2 Management review – Input requirements	6.5.2 Management review – Input requirements
	7.2.3 Customer-related processes – Customer communication		
4.3 Determining the scope of the quality management system	4.1 Quality management system – General requirements	4.1.1 Quality management system – General	4.1.1 General – Quality management system

Correlation matrices ISO 29001:2020 related to ISO/TS 29001:2010, API Q1 (9th ed) & API Q2 (1st ed) (version 2019-09-13)

ISO 29001:2020	ISO/TS 29001:2010	API Spec Q1 (9 th ed)	API Spec Q2 (1 st ed)	
		4.1.4 Quality management system – Planning	4.1.4 General – Planning	
	4.2.1 Documentation requirements – General	4.4.1 Documentation requirements – General	4.4.1 Documentation requirements – General	
4.4 Quality management system and its processes	4.1 Quality management system – General requirements	4.1.1 Quality management system – General	4.1.1 General – Quality management system	
		4.1.4 Quality management system – Planning	4.1.4 General – Planning	
		4.2.1 Management responsibility – General	4.2.1 Management responsibility – Organizational structure	
	4.2.1 Documentation requirements – General		4.4.1 Documentation requirements – General	4.4.1 Documentation requirements – General
			4.4.2 Documentation requirements – Procedures	4.4.1 Documentation requirements – General
	5.1 Management commitment	5.3 Risk assessment and management	5.3 Risk assessment and management	
	8.1 Measurement, analysis, and improvement – General	6.1 Quality management system monitoring, measurement, analysis, and improvement – General	6.1 Quality management system monitoring, measurement, analysis, and improvement – General	
	8.2.3 Monitoring and measurement – Monitoring and measurement of processes	6.2.3 Monitoring, measurement, and improvement – Process evaluation	6.2.2 Monitoring, measurement, and improvement – Internal audit	
	8.4 Analysis of data	6.3 Analysis of data	6.3 Analysis of data	
5 Leadership				
5.1 Leadership and commitment				
5.1.1 General	5.1 Management commitment	4.1.2 Quality management system – Quality policy	4.1.2 General – Quality policy	
	5.3 Quality policy			

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ISO 29001:2020	ISO/TS 29001:2010	API Spec Q1 (9 th ed)	API Spec Q2 (1 st ed)
	5.4.1 Planning – Quality objectives	4.1.3 Quality management system – Quality objectives	4.1.3 General – Objectives
	5.5.3 Responsibility, authority, and communication – Internal communication	4.1.5.1 Quality management system – Communication – Internal	4.1.5.1 General – Communication – Internal
		4.2.1 Management responsibility – General	4.2.1 Management responsibility – Organizational structure
	5.6.1 Management review – General	6.5.1 Management review – General	6.5.1 Management review – General
5.1.2 Customer focus	7.2.3 Customer-related processes – Customer communication	4.1.5.2 Quality management system – Communication – External	4.1.5.2 General – Communication – External
5.2 Policy			
5.2.1 Establishing the quality policy	5.3 Quality policy	4.1.2 Quality management system – Quality policy	4.1.2 General – Quality policy
5.2.2 Communicating the quality policy	5.1 Management commitment		
	5.3 Quality policy	4.1.2 Quality management system – Quality policy	4.1.2 General – Quality policy
5.3 Organizational roles, responsibilities and authorities	5.5.1 Responsibility, authority, and communication – Responsibility and authority	4.1.5.1 Quality management system – Communication – Internal	4.1.5.1 General – Communication – Internal
	5.5.2 Responsibility, authority, and communication – Management representative	4.2.2 Management responsibility – Responsibility and authority	4.2.2 Management responsibility – Responsibility and authority
	5.5.3 Responsibility, authority, and communication – Internal communication	4.2.3 Management responsibility – Management representative	
6 Planning			
6.1 Actions to address risks and opportunities		5.3 Risk assessment and management	5.3 Risk assessment and management
	8.5.2 Improvement – Corrective action	6.4.2 Improvement – Corrective action	6.4.2 Improvement – Corrective action

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ISO 29001:2020	ISO/TS 29001:2010	API Spec Q1 (9 th ed)	API Spec Q2 (1 st ed)
	8.5.3 Improvement – Preventive action	6.4.3 Improvement – Preventive action	6.4.3 Improvement – Preventive action
6.2 Quality objectives and planning to achieve them	5.4.1 Planning – Quality objectives	4.1.3 Quality management system – Quality objectives	4.1.3 General – Objectives
6.3 Planning of changes	<i>No equivalent requirement</i>	5.11 Management of change	5.11 Management of change
7 Support			
7.1 Resources			
7.1.1 General	6.1 Provision of resources	4.3.1 Organizational capability – Provision of resources	4.3.1 Organizational capability – Provision of resources
7.1.2 People	6.1 Provision of resources	4.3.1 Organizational capability – Provision of resources	4.3.1 Organizational capability – Provision of resources
	6.2.2 Human resources – Competence, training and awareness	4.3.2 Organizational capability – Human resources	4.3.2 Organizational capability – Human resources
7.1.3 Infrastructure	6.3 Infrastructure	4.3.3 Work environment	4.3.3 Work environment
		5.7.8 Preventive maintenance	5.7.8 Preventive maintenance, inspection, and test program
7.1.4 Environment for the operation of processes	6.3 Infrastructure	4.3.3 Work environment	4.3.3 Work environment
7.1.5 Monitoring and measuring resources	7.6 Control of monitoring and measuring equipment	5.8 Control of testing, measuring, and monitoring equipment	5.8 Control of testing, measuring, and monitoring, and detection equipment
7.1.6 Organizational knowledge	<i>No equivalent requirement</i>	<i>No equivalent requirement</i>	<i>No equivalent requirement</i>
7.2 Competence	6.2.1 Human resources – General	4.3.2.1 Organizational capability - Human resources – General	4.3.2.1 Organizational capability - Human resources – General
	6.2.2 Human resources – Competence, training and awareness	4.3.2.2 Organizational capability – Human resources – Personnel competence	4.3.2.2 Organizational capability – Human resources – Personnel competence

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ISO 29001:2020	ISO/TS 29001:2010	API Spec Q1 (9 th ed)	API Spec Q2 (1 st ed)
		4.3.2.3 Organizational capability – Human resources – Training and awareness	4.3.2.3 Organizational capability – Human resources – Training and awareness
7.3 Awareness	5.5.3 Responsibility, authority, and communication – Internal communication	4.1.5.1 Quality management system – Communication – Internal	4.1.5.1 General – Communication – Internal
	6.2.2 Human resources – Competence, training and awareness	4.3.2.3 Organizational capability – Human resources – Training and awareness	4.3.2.3 Organizational capability – Human resources – Training and awareness
7.4 Communication	5.5.3 Responsibility, authority, and communication – Internal communication	4.1.5.1 Quality management system – Communication – Internal	4.1.5.1 General – Communication – Internal
	7.2.3 Customer-related processes – Customer communication	4.1.5.2 Quality management system – Communication – External	4.1.5.2 General – Communication – External
7.5 Documented information			
7.5.1 General	4.2.1 Documentation requirements – General	4.4.1 Documentation requirements – General	4.4.1 Documentation requirements – General
		4.4.2 Documentation requirements – Procedures	
	4.2.3 Documentation requirements – Control of documents	4.4.3 Documentation requirements – Control of documents	4.4.2 Documentation requirements – Control of documents
	4.2.4 Documentation requirements – Control of records	4.5 Control of records	4.5 Control of records
	7.1.1 Product realization – Planning of product realization – Supplemental	4.4.4 Documentation requirements – Use of external documents in product realization	
7.5.2 Creating and updating	4.2.1 Documentation requirements – General	4.4.1 Documentation requirements – General	4.4.1 Documentation requirements – General

Correlation matrices ISO 29001:2020 related to ISO/TS 29001:2010, API Q1 (9th ed) & API Q2 (1st ed) (version 2019-09-13)

ISO 29001:2020	ISO/TS 29001:2010	API Spec Q1 (9 th ed)	API Spec Q2 (1 st ed)
		4.4.2 Documentation requirements – Procedures	
	4.2.3 Documentation requirements – Control of documents	4.4.3 Documentation requirements – Control of documents	4.4.2 Documentation requirements – Control of documents
	4.2.4 Documentation requirements – Control of records	4.5 Control of records	4.5 Control of records
	7.1.1 Product realization – Planning of product realization – Supplemental	4.4.4 Documentation requirements – Use of external documents in product realization	
7.5.3 Control of documented information	4.2.3 Documentation requirements – Control of documents	4.4.3 Documentation requirements – Control of documents	4.4.2 Documentation requirements – Control of documents
	4.2.4 Documentation requirements – Control of records	4.5 Control of records	4.5 Control of records
	7.1.1 Product realization – Planning of product realization – Supplemental	4.4.4 Documentation requirements – Use of external documents in product realization	
8 Operation			
8.1 Operational planning and control	7.1 Product realization – Planning of product realization	5.2 Planning	5.2 Planning
		5.7.2 Product quality plans	5.7.2 Service quality plan
		5.11 Management of change	5.11 Management of change
		5.5.1 Contingency planning – General	5.5.1 Contingency planning – General
8.2 Requirements for products and services			
8.2.1 Customer communication	7.2.3 Customer-related processes – Customer communication	4.1.5.2 Quality management system – Communication – External	4.1.5.2 General - Communication – External
		5.5.2 Contingency planning – Planning output	5.5.2 Contingency planning – Planning output

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ISO 29001:2020	ISO/TS 29001:2010	API Spec Q1 (9 th ed)	API Spec Q2 (1 st ed)
8.2.2 Determining the requirements for products and services	7.2.1 Customer-related processes – Determination of requirements related to the product	5.1.2 Contract review – Determination of requirements	5.1.2 Contract review – Determination of requirements
	7.2.2 Customer-related processes – Review of requirements related to the product		
8.2.3 Review of the requirements for products and services	7.2.2 Customer-related processes – Review of requirements related to the product	5.1.3 Contract review – Review of requirements	5.1.3 Contract review – Review of requirements
	7.2.2.1 Customer-related processes – Review of requirements related to the product – Supplemental	5.1.1 Contract review – General	5.1.1 Contract review – General
8.2.4 Changes to requirements for products and services		5.1.3 Contract review – Review of requirements	5.1.3 Contract review – Review of requirements
8.3 Design and development of products and services			
8.3.1 General	7.3.1 Design and development – Design and development planning	5.4.1 Design and development – Design and development planning	5.4.1 Design and development – Design and development planning
8.3.2 Design and development planning	7.3.1 Design and development – Design and development planning	5.4.1 Design and development – Design and development planning	5.4.1 Design and development – Design and development planning
8.3.3 Design and development inputs	7.3.2 Design and development – Design and development inputs	5.4.2 Design and development – Design and development inputs	5.4.2 Design and development – Design and development inputs
8.3.4 Design and development controls	7.3.4 Design and development – Design and development review	5.4.4 Design and development – Design and development review	5.4.4 Design and development – Verification
	7.3.5 Design and development – Design and development verification	5.4.5 Design and development – Design and development verification and final review	5.4.5 Design and development – Final review and approval

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ISO 29001:2020	ISO/TS 29001:2010	API Spec Q1 (9 th ed)	API Spec Q2 (1 st ed)
	7.3.6 Design and development – Design and development validation	5.4.6 Design and development – Design and development validation and approval	
8.3.5 Design and development outputs	7.3.3 Design and development – Design and development outputs	5.4.3 Design and development – Design and development outputs	5.4.3 Design and development – Design and development outputs
	7.3.6 Design and development – Design and development validation	5.4.6 Design and development – Design and development validation and approval	5.4.5 Design and development – Final review and approval
8.3.6 Design and development changes	7.3.7 Design and development – Control of design and development changes	5.4.7 Design and development – Design and development changes	5.4.6 Design and development – Control of design and development changes
8.4 Control of externally provided processes, products and services			
8.4.1 General	4.1 Quality management system – General requirements		
	7.4.1 Purchasing – Purchasing process	5.6 Purchasing	5.6 Purchasing
	7.4.2 Purchasing – Purchasing information		
	7.4.3 Purchasing – Verification of purchased product		
8.4.2 Type and extent of control	4.1 Quality management system – General requirements		
	7.4.1 Purchasing – Purchasing process	5.6.1 Purchasing – Purchasing control	5.6.1 Purchasing – Purchasing control
	7.4.3 Purchasing – Verification of purchased product	5.6.3 Purchasing – Verification of purchased products or activities	5.6.3 Purchasing – Verification of purchased services and service-related product
8.4.3 Information for external providers	7.4.2 Purchasing – Purchasing information	5.6.2 Purchasing – Purchasing information	5.6.2 Purchasing – Purchasing information

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ISO 29001:2020	ISO/TS 29001:2010	API Spec Q1 (9 th ed)	API Spec Q2 (1 st ed)
8.5 Production and service provision			
8.5.1 Control of production and service provision	7.5.1 Production and service provision – Control of production and service provision	5.7.1.1 Control of production and servicing - Production	5.7.1 Control of service execution
		5.7.1.2 Control of production and servicing – Servicing	
		5.7.1.3 Control of production and servicing – Process control documents	5.7.1.2 Control of service execution – Documentation
		5.7.1.4 Control of production and servicing – Product realization capability documentation	
	7.5.2 Production and service provision – Validation of process for production and service provision	5.7.1.5 Control of production and servicing – Validation of processes for production and servicing	
8.5.2 Identification and traceability	7.5.3 Production and service provision – Identification and traceability	5.7.4 Product inspection/test status	5.7.4 Service-related product status
8.5.3 Property belonging to customers or external providers	7.5.4 Production and service provision – Customer property	5.7.5 Customer-supplied property	5.7.5 Customer property
8.5.4 Preservation	7.5.5.1 Preservation of product – Preservation of product – Supplemental	5.7.6.1 Preservation of product – General	5.7.6 Preservation of service-related product
	7.5.5.2 Preservation of product – Periodic assessment of stock – Supplemental	5.7.6.2 Preservation of product – Storage and assessment	
8.5.5 Post-delivery activities	7.5.1 Production and service provision – Control of production and service provision	5.7.1.1 Control of production and servicing – Production	5.7.1.1 Control of service execution – General
	8.3.3 Control of nonconforming product – Customer notification – Supplemental	5.10.4 Control of nonconforming product – Customer notification	5.10.4 Control of nonconformities – Customer notification

Correlation matrices ISO 29001:2020 related to ISO/TS 29001:2010, API Q1 (9th ed) & API Q2 (1st ed) (version 2019-09-13)

ISO 29001:2020	ISO/TS 29001:2010	API Spec Q1 (9 th ed)	API Spec Q2 (1 st ed)
8.5.6 Control of changes	7.3.7 Design and development – Control of design and development changes	5.4.7 Design and development – Design and development changes	5.4.6 Design and development – Control of design and development changes
		5.11 Management of change	5.11 Management of change
8.6 Release of products and services	8.2.4 Monitoring and measurement – Monitoring and measurement of product	5.7.7.1 Inspection and testing – General	5.9 Service performance validation
		5.7.7.3 Inspection and testing – Final inspection and testing	5.7.7 Validation of service-related product
		5.9 Product release	
8.7 Control of nonconforming outputs	8.3 Control of nonconforming product	5.10.1 Control of nonconforming product – General	5.10.1 Control of nonconformities – General
		5.10.2 Control of nonconforming product – Nonconforming product	5.10.2 Control of nonconformities – Nonconforming service execution and service-related product
		5.10.5 Control of nonconforming product – Records	
	8.3.1 Control of nonconforming product – Release or acceptance of nonconforming product – Supplemental	5.10.3 Control of nonconforming product – Release of nonconforming product under concession	5.10.3 Control of nonconformities – Verification and documentation
9 Performance evaluation			
9.1 Monitoring, measurement, analysis, and evaluation			
9.1.1 General	8.1 Measurement, analysis, and improvement – General	6.1 Quality management system monitoring, measurement, analysis, and improvement – General	6.1 Quality management system monitoring, measurement, analysis, and improvement – General
9.1.2 Customer satisfaction	8.2.1 Monitoring and measurement – Customer satisfaction	6.2.1 Monitoring, measurement, and improvement – Customer satisfaction	6.2.1 Monitoring, measurement, and improvement – Customer satisfaction

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ISO 29001:2020	ISO/TS 29001:2010	API Spec Q1 (9 th ed)	API Spec Q2 (1 st ed)
9.1.3 Analysis and evaluation	5.6.1 Management review – General	6.5 Management review	6.5 Management review
	5.6.2 Management review – Review input		
	5.6.3 Management review – Review output		
	8.4 Analysis of data	6.3 Analysis of data	6.3 Analysis of data
9.2 Internal audit	8.2.2 Monitoring and measurement – Internal audit	6.2.2 Monitoring, measurement, and improvement – Internal audit	6.2.2 Monitoring, measurement, and improvement – Internal audit
9.3 Management review			
9.3.1 General	5.6.1 Management review – General	6.5.1 Management review – General	6.5.1 Management review – General
9.3.2 Management review inputs	5.6.2 Management review – Review input	6.5.2 Management review – Input requirements	6.5.2 Management review – Input requirements
9.3.3 Management review outputs	5.6.3 Management review – Review output	6.5.3 Management review – Output requirements	6.5.3 Management review – Output requirements
10 Improvement			
10.1 General	8.5.1 Improvement – Continual improvement	6.4.1 Improvement – General	6.4.1 Improvement – General
10.2 Nonconformity and corrective action	8.5.2 Improvement – Corrective action	6.4.2 Improvement – Corrective action	6.4.2 Improvement – Corrective action
10.3 Continual improvement	8.5.3 Improvement – Preventive action	6.4.3 Improvement – Preventive action	6.4.3 Improvement – Preventive action

ADDITIONAL INFORMATION

The standards referenced in this documents can be viewed and obtained through the following links:

- [ISO 29001:2020, Petroleum, petrochemical and natural gas industries – Sector-specific quality management systems – Requirements for product and service supply organizations](#)
- [ISO/TS 29001:2010, Petroleum, petrochemical and natural gas industries – Sector-specific quality management systems – Requirements for product and service supply organizations](#)

Correlation matrices ISO 29001:2020 related to ISO/TS 29001:2010, API Q1 (9th ed) & API Q2 (1st ed) (version 2019-09-13)

- **API Spec Q1**, *Specification for quality management system requirements for manufacturing organizations for the petroleum and natural gas industry* (9th edition, June 2013)
- **API Spec Q2**, *Specification for quality management system requirements for service supply organizations for the petroleum and natural gas industries* (1st edition, December 2011)

ISO/TC 176/SC 2 "Quality systems", responsible for developing and maintaining ISO 9001, has also developed guidance documents including correlation matrices. These guidance documents can be accessed through the public **ISO/TC 176/SC 2 website**, which also contains other relevant guidance documents.