International Association of Oil & Gas Producers

SPECIFICATION

IOGP S-722Q

May 2026

Version 1.1

Quality Requirements for Flare Package (API)

JIP33 JOINT INDUSTRY PROGRAMME

Revision history

VERSION	DATE	PURPOSE
1.1	May 2026	Issued for Public Review
1.0	August 2020	First Edition

Acknowledgements

This IOGP Specification was prepared by a Joint Industry Programme 33 Standardization of Equipment Specifications for Procurement organized by IOGP with support by the World Economic Forum (WEF).

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Foreword

This specification was prepared under Joint Industry Programme 33 (JIP33) "Standardization of Equipment Specifications for Procurement" organized by the International Oil & Gas Producers Association (IOGP) with the support from the World Economic Forum (WEF). Companies from the IOGP membership participated in developing this specification to leverage and improve industry level standardization globally in the oil and gas sector. The work has developed a minimized set of supplementary requirements for procurement, with life cycle cost in mind, resulting in a common and jointly agreed specification, building on recognized industry and international standards.

Recent trends in oil and gas projects have demonstrated substantial budget and schedule overruns. The Oil and Gas Community within the World Economic Forum (WEF) has implemented a Capital Project Complexity (CPC) initiative which seeks to drive a structural reduction in upstream project costs with a focus on industry-wide, non-competitive collaboration and standardization. The CPC vision is to standardize specifications for global procurement for equipment and packages. JIP33 provides the oil and gas sector with the opportunity to move from internally to externally focused standardization initiatives and provide step change benefits in the sector's capital projects performance.

This specification has been developed in consultation with a broad user and supplier base to realize benefits from standardization and achieve significant project and schedule cost reductions.

The JIP33 work groups performed their activities in accordance with IOGP's Competition Law Guidelines (November 2020).

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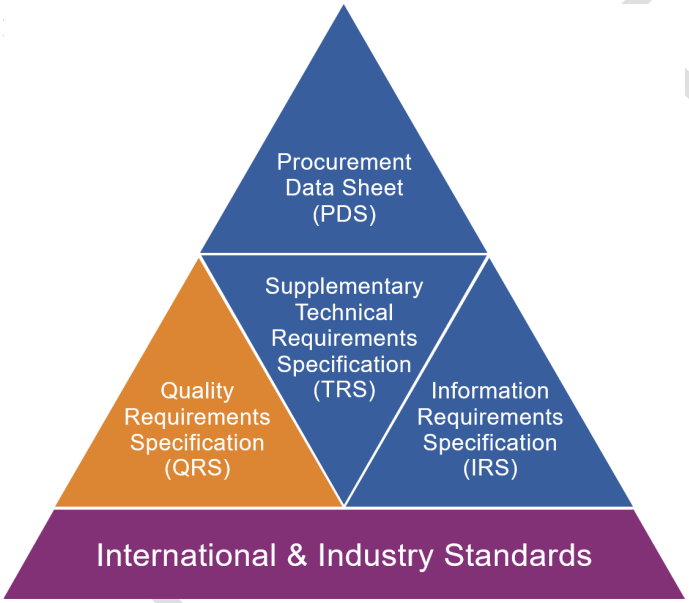
Introduction

The purpose of this quality requirements specification (QRS) is to specify quality management requirements and the proposed extent of purchaser intervention activities for the procurement of flare packages in accordance with IOGP S-722 for application in the petroleum and natural gas industries.

Purchaser intervention activities are identified through the selection of one of four conformity assessment system (CAS) levels based on a risk and criticality assessment. The applicable CAS level is specified by the purchaser in the procurement data sheet (PDS) or purchase order.

The IOGP S-722 specification documents follow a common structure (as shown below) comprising a specification, also known as a technical requirements specification (TRS), a PDS, an information requirements specification (IRS) and this QRS. These four specification documents, together with the purchase order, define the overall technical specification for procurement.



JIP33 Specification for Procurement Documents
Quality Requirements Specification (QRS)

This QRS is to be applied in conjunction with the specification, the PDS and the IRS, referred to in this document as IOGP S-722, IOGP S-722D and IOGP S-722L respectively. Further information on the purpose of these documents and the order of precedence for their use is provided in the introduction of the specification.

1 Scope

This QRS specifies quality management requirements for the supply of flare packages to IOGP S-722 including:

a) supplier quality management system (QMS) requirements;

b) purchaser conformity assessment (surveillance and inspection) activities;

c) traceability requirements.

2 Normative references

For the purpose of this document, the documents referenced in IOGP S-722 and those listed below, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

API Standard 537, *Flare Details for Petroleum, Petrochemical, and Natural Gas Industries*

API Specification Q1, *Quality Management System Requirements for Organizations Providing Products for the Petroleum and Natural Gas Industry*

EN 10204, *Metallic products - Types of inspection documents*

IOGP S-722, *Supplementary Specification to API Standard 537 for Flare Package*

ISO 9000:2015, *Quality management systems — Fundamentals and vocabulary*

ISO 9001:2015, *Quality management systems — Requirements*

ISO 10474, *Steel and steel products — Inspection documents*

ISO 29001, *Petroleum, petrochemical and natural gas industries — Sector-specific quality management systems — Requirements for product and service supply organizations*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purpose of this document, the terms and definitions given in IOGP S-722 and ISO 9000:2015 (normative to ISO 9001:2015) and the following shall apply.

3.1.1
conformity assessment
demonstration that specified requirements are fulfilled

Note 1 to entry: "Conformity assessment" is also referred to as "assessment".

Note 2 to entry: Conformity assessment includes review, inspection, verification and validation activities.

Note 3 to entry: Conformity assessment activities may be undertaken at supplier/sub-supplier premises, virtually by video link, desktop sharing, etc. or by review of information.

3.1.2
conformity assessment system
CAS
system that provides different levels of purchaser interventions to assess and verify supplier conformance to specified requirements

Note 1 to entry: CAS level A applies to the highest risk and associated extent of verification. CAS level D is the lowest.

3.1.3
hold point
H
<conformity assessment> point in the chain of activities beyond which an activity shall not proceed without the approval of the purchaser or purchaser's representative

3.1.4
witness point
W
<conformity assessment> point in the chain of activities at which the supplier shall notify the purchaser or purchaser's representative before proceeding

Note 1 to entry: The operation or process may proceed without witness if the purchaser does not attend after the agreed notice period.

3.1.5
surveillance
S
<conformity assessment> observation, monitoring or review, by the purchaser or purchaser's representative, of an activity, operation, process, product or associated information

3.1.6
review
R
<conformity assessment> review of the supplier's records, procedures and supporting information to verify and/or validate conformance to requirements

3.2 Abbreviated terms

CAS	conformity assessment system
FAT	factory acceptance test
IRS	information requirements specification
ITP	inspection and test plan
QMS	quality management system
PDS	procurement data sheet
PMI	positive material identification
QRS	quality requirements specification
TRS	technical requirements specification

4 Quality requirements

4.1 Quality management system (QMS)

The supplier shall operate and maintain a quality management system (QMS) that conforms with ISO 9001, ISO 29001, API Specification Q1 or an equivalent QMS standard.

4.2 Conformity assessment system (CAS)

4.2.1

The CAS provides different levels of assessment of supplier control activities. The CAS level is defined by the purchaser using a risk-based approach and included in the purchase order / contract. The defined CAS level may be adjusted by the purchaser during manufacture based on the supplier's performance and re-assessment of risk.

NOTE For industrial proven solutions, CAS level D is specified unless risk assessment indicates that a more stringent CAS level is required.

4.2.2

Quality plans and inspection and test plans shall include provision for purchaser intervention activities based on the CAS level selected in the PDS or purchase order. See Table A.1.

4.2.3

The supplier's performance in meeting the requirements may be routinely assessed during execution of the scope and, where appropriate, corrective action requested, and conformity assessment activities may be increased or decreased consistent with criticality and risk.

4.2.4

If any subcontracted or scope of supply occurs outside of the primary supplier location, it shall include interventions within the primary inspection and test plan (ITP) or secondary ITP. It is discouraged to use "hold" (H) within Table A.1, section 3 and recommended to use "surveillance" (S).

5 Certification and traceability

Where material certification and traceability requirements are not specified in API Standard 537 or IOGP S-722, they shall be maintained in accordance with Table B.1.

6 Evidence — conformance records

Documents and information shall be provided for in accordance with IOGP S-722L.

Annex A
(normative)
Purchaser conformity assessment requirements

Table A.1 defines four CAS levels or levels of purchaser assessment.

Table A.1 — Purchaser conformity assessment requirements

Purchaser assessment activities		CAS			
		A	B	C	D
1	**Operational planning and control activities**				
1.1	Attend pre-inspection/pre-production planning meeting	H	H	W	W
2	**Design and development activities**				
2.1	Final design				
2.1.1	Attend final design review meeting (IOGP S-722, 4.5, 5.2, 5.3.1, 5.3.3, 5.3.6, 5.4.1)	H	H	W	-
2.2	Manufacturing qualification				
2.2.1	Welder performance qualification (WPQ) NOTE Personnel qualification records are confidential. They can only be reviewed on-site and cannot be managed via the IRS. (IOGP S-722, 5.5.1, 5.5.2, 5.5.3)	W	W	R	-
2.2.2	Nondestructive testing process and personnel qualification. NOTE Personnel qualification records are confidential. They can only be reviewed on-site and cannot be managed via the IRS. (IOGP S-722, 5.6.1, 5.6.4, 5.6.5)	W	R	R	-
3	**Externally provided products and services (outsourced)**				
3.1	No applicable activities	-	-	-	-
4	**Production and service provision**				
4.1	Component manufacture				
4.1.1	Welding of pressure-containing components (IOGP S-722, 5.5.1, 5.5.2, 5.5.4, 5.5.5, 5.5.6, 5.5.7)	S	S	-	-
4.1.2	Visual inspection of welds of relief-gas-containing portions of the support structure (IOGP S-722, 5.6.1)	W	W	S	S
4.1.3	Visual inspection flare burner welds (IOGP S-722, 5.6.3)	H	H	W	S
4.1.4	Nondestructive examination of materials and welds, including ferrite and hardness testing (IOGP S-722, 5.6.1, 5.6.4, 5.6.5)	W	R	R	R
4.1.5	Positive material identification (PMI) of materials and welds of completed parts (IOGP S-722, 4.5, 4.7, 5.4.2, 5.6.6)	W	W	W	R
4.1.6	Pressure testing (IOGP S-722, 5.1, 5.6.1)	H	H	W	R

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Table A.1 *(continued)*

Purchaser assessment activities		CAS			
		A	B	C	D
4.2	Sub-assembly				
4.2.1	Welding of structural components (IOGP S-722, 5.5.3)	S	S	-	-
4.2.2	Visual inspection of structural welds (IOGP S-722, 5.6.1)	W	S	S	S
4.2.3	Nondestructive examination of materials and welds (IOGP S-722, 5.5.3, 5.6.1, 5.6.2, 5.6.4, 5.6.5)	W	R	R	R
4.3	Assembly				
4.3.1	Coating application (IOGP S-722, 5.7.1, 5.7.4)	S	S	S	S
4.3.2	Coating testing (IOGP S-722, 5.7.1, 5.7.4)	W	W	R	R
4.3.3	Flare burner, pilot and ignition skid assembly visual and dimensional inspection (IOGP S-722, , 4.5, 4.7, 4.8.1, 4.8.4, 4.9.1, 4.11.2.1, 4.12.3, 4.16.1, 4.16.3, 4.16.4, 4.16.5, 5.3.6, 5.6.1, 5.6.9, 5.9.3)	H	H	H	R
4.3.4	Support structure trial assembly, visual and dimensional inspection (IOGP S-722, 4.7, 5.6.7, 5.6.8)	H	H	H	H
4.5	Final tests, including factory acceptance test (FAT)				
4.4.1	Control system functional testing (IOGP S-722, 4.8.1)	H	H	W	R
4.4.2	Pilot, ignition and flame detection performance testing (IOGP S-722, 4.12.4, 4.16.2, 4.7)	H	H	W	R
4.4.3	Air-assist blowers mechanical run test (IOGP S-722, 4.11.8)	W	W	W	R
4.4.4	Refractory installation (IOGP S-722, 6.1.3, 6.1.7)	W	W	W	R
4.4.5	Mechanical and electrical ATEX, and/or IECEx inspections and certification checks	S	S	S	S
5	**Final inspection**				
5.1	Conformance to purchase order				
5.1.1	Final inspection including nameplate and stamping (if applicable). (IOGP S-722, 4.5, 4.7, 4.8.1, 5.2)	H	H	H	R
5.2	Preservation, packing and preparation for shipping	H	W	W	R
5.3	Release equipment	H	H	H	R

Key

- - No intervention performed
- H Hold point
- W Witness point
- R Review
- S Surveillance

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Annex B
(normative)
Certification and traceability requirements

Table B.1 provides the certification and traceability requirements for the equipment and component parts.

Table B.1 — Certification and traceability requirements

Item		Certificate type [a]	Traceability level [b]	Additional requirements
Flare Package	Flare burner and pilots	3.1	Level I	
	Pressure-containing parts, bolting and gaskets	3.1	Level II	
	Flare support structure including structural bolting	3.1	Level II	
	Guy wires and hardware	3.1	Level II	
	Lifting equipment	3.1	Level II	
	Welding consumables for flare burner	3.1	Level II	
	Auxiliary structural steel	2.2	Level II	
	Bolting for instrumentation, electrical and auxiliaries	2.2	Level II	
	Welding consumables for pressure-containing parts	2.2	Level III	
	Electrical equipment and instruments, including cables and glands	2.1	Level III	

[a] Inspection certificates shall be provided in accordance with ISO 10474 or EN 10204.

[b] Traceability levels are defined in the following table.

Level	Traceability	Definition
Level I	Full traceability	Material is uniquely identified and its history tracked from manufacture through stockists (where applicable) to the supplier and to the actual position on the equipment with the specific location defined on a material placement record (the traceability to a specific location only applies to skids / packaged equipment, not to bulks).
Level II	Type traceability	The supplier maintains a system to identify material throughout manufacture, with traceability to a material certificate.
Level III	Compliance traceability	The supplier maintains a system of traceability that enables a declaration of compliance to be issued by the supplier.

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