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ADDENDUM 1

This addendum (Version 1.01) replaces Edition 1.0 published in May 2022.

NOTE: In addition to the updates listed below, minor editorial/typographical amendments may have been made.

List of updates

Clause/subclause	Description
4	Acronyms IOM, MRB and SWL added
Annex A table	Row 1.2 CAS B amended to H and CAS C amended to W Row 1.2 list of references amended Row 1.3 CAS C amended to W New rows 4.1.2 through 4.1.5 Row 4.1.2 * renumbered to 4.1.6 New row 4.1.7 Row 4.1.3 * renumbered to 4.1.8 New row 5.2 Row 5.2 * renumbered to 5.3
Annex B table	First row of "Valve component", column "Item" amended
* Clause/subclause number from Edition 1.0.	

International Association of Oil & Gas Producers

SPECIFICATION
IOGP S-729Q

March 2026
Version 1.01

ADDENDUM 1 TO FIRST EDITION (MAY 2022)

Quality Requirements for Control Valves

JIP33
JOINT INDUSTRY PROGRAMME

Revision history

VERSION	DATE	PURPOSE
1.01	March 2026	Addendum 1
1.0	May 2022	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).

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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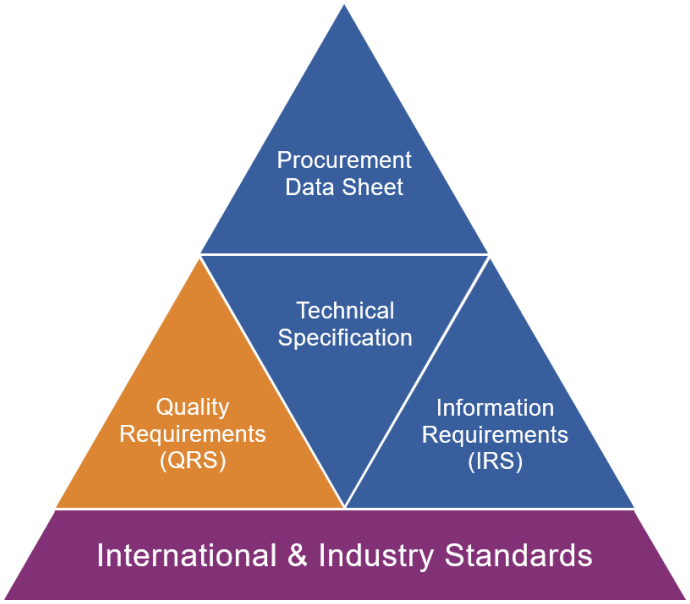
Introduction

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 control valves in accordance with IOGP S-729 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 or purchase order.

This QRS shall be used in conjunction with the specification (IOGP S-729), the procurement data sheet (IOGP S-729D) and the information requirements specification (IOGP S-729L) which together comprise the full set of specification documents. The introduction section in the specification provides further information on the purpose of each of these documents and the order of precedence for their use.



JIP33 Specification for Procurement Documents
Quality Requirements Specification

1 Scope

To specify quality management requirements for the supply of control valves to IOGP S-729 including:

a) manufacturer quality management system 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-729 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 Specification Q1, *Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry*

IOGP S-729, *Specification for Control Valves*

ISO 9001, *Quality management systems — Requirements*

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

3 Terms and definitions

For the purpose of this document, the terms and definitions given in IOGP S-729 and ISO 9000 (normative to ISO 9001), and the following shall apply.

3.1
conformity assessment
demonstration that specified requirements are fulfilled

Note 1 to entry: Conformity assessment (or assessment) includes but is not limited to review, inspection, verification and validation activities.

Note 2 to entry: Assessment activities may be undertaken at a manufacturer/sub-supplier premises, virtually by video link, desktop sharing, etc. or by review of information.

3.2
conformity assessment system
CAS
system that provides different levels of purchaser interventions to assess and verify manufacturer conformance to specified requirements

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

3.3
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 representative

3.4
witness point
W
<conformity assessment> point in the chain of activities that the manufacturer shall notify the purchaser or purchaser 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.

3.5
surveillance
S
<conformity assessment> observation, monitoring or review by the purchaser or purchaser representative of an activity, operation, process, product or associated information

3.6
review
R
<conformity assessment> review of the manufacturer's information to verify conformance to requirements

4 Symbols and abbreviations

For purposes of this document, the following symbols and abbreviations apply.

CAS	conformity assessment system
IOM	installation, operating and maintenance instructions manual
IRS	information requirements specification
MRB	manufacturer record book
QMS	quality management system
QRS	quality requirements specification (this document)
QSL	quality system level
SWL	safe working load

5 Quality requirements

5.1 Quality management system

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

5.2 Conformance assessment system (CAS)

5.2.1

The conformity assessment system (CAS) provides different levels of assessment of the manufacturer 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 manufacturer 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.

5.2.2

Quality plans and inspection and test plans shall include provision for purchaser intervention activities based on the CAS level selected in the procurement data sheet or purchase order. See Annex A.

5.2.3

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

6 Certification and traceability

Material certification and traceability shall be maintained in accordance with Annex B.

7 Evidence — conformance records

Documents and information shall be provided for in accordance with the associated IRS.

Annex A
(normative)
Purchaser conformity assessment requirements

This annex defines four conformity assessment systems (CAS) or levels of purchaser assessment.

	PURCHASER ASSESSMENT ACTIVITIES	CAS			
		A	B	C	D
1	**Operational planning and control activities**				
1.1	Quality planning	H	W	-	-
1.2	Inspection and test planning (IOGP S-729, 14.1.1.3, 14.1.1.4, 14.1.2, 14.1.3, 14.1.4.1, 14.1.4.2, 14.1.5.1, 14.1.5.2, 14.1.5.4, 14.1.6, 14.1.7, 14.1.8.1, 14.1.8.2, 14.1.8.4, 14.1.8.5, 14.1.9, 14.1.10, 14.2, Table 13, Table 14, Table 15)	H	H	W	R
1.3	Pre-inspection/pre-production planning and review against compliance with purchase order (IOGP S-729, 1.1)	H	W	W	-
2	**Design and development activities**				
2.1	No applicable activities	-	-	-	-
3	**Control of external supply**				
3.1	External supply scope, risk assessment and controls	S	S	-	-
4	**Production and service provision**				
4.1	Material verification				
4.1.1	Positive material identification (IOGP S-729, 14.1.9, Table 13)	H	W	R	R
4.1.2	Material traceability and certification review (IOGP S-729, 10.1, 10.2, 10.4, 10.5)	W	R	R	-
4.1.3	Overlays and hard-facing (IOGP S-729, 10.1.2, 10.1.3, 10.2.1, 10.3, 10.4, 10.5, 14.1.1.3, A.1, A.2, Table A.1, Table A.2)	W	S	S	-
4.1.4	Certified equipment check (Ex certification review)	S	S	S	-
4.1.5	Assembly sequence including inspection of bolting torque and sequence, threaded fittings, critical sealing elements, actuator, gearbox and safe working load (SWL) of the lifting points (IOGP S-729, 10.1.9, 10.1.11, 10.1.12, 11.3.5, 14.1.1.3, 14.1.5.4, 14.2.6.2, 6.4, 6.6.3, 6.8.1, 6.8.2, 7.2.1, A.7)	W	W	S	-
4.1.6	Valve NDE inspection in line with Annex A for the specified QSL (IOGP S-729, A.1, A.2)	H	W	R	R
4.1.7	Weight verification for valves weighing 1 000 kg and above	W	W	R	-
4.1.8	Weld repair on castings (IOGP S-729, 10.3.1)	H	W	W	R
4.2	Mandatory testing				
4.2.1	Visual inspection (IOGP S-729, 6.1.2, 6.1.3, 6.2.1, 6.2.2, 11.3.3, 14.1.1.3, 14.1.2, Clause 16, Table 13)	H	W	R	-
4.2.2	Dimensional check (IOGP S-729, 6.1.2, 6.1.3, 14.1.1.3, 14.1.3, Table 13)	H	W	W	-

	PURCHASER ASSESSMENT ACTIVITIES *(continued)*	CAS			
		A	B	C	D
4.2.3	Hydrostatic test (IOGP S-729, 14.1.1.3, 14.1.4.1, 14.1.4.3, Table 13)	H	W	W	R
4.2.4	Seat leakage test (IOGP S-729, 7.3, 14.1.1.3, 14.1.5.1, 14.1.5.2, 14.1.5.3, Table 13)	H	W	W	R
4.2.5	Packing test (IOGP S-729, 14.1.1.3, 14.1.6, Table 13)	H	W	W	R
4.2.6	Rated valve travel test (IOGP S-729, 14.1.1.3, 14.1.7, Table 13)	H	W	W	R
4.2.7	Functional test (IOGP S-729, 11.4.2, 11.5.1, 11.5.3, 12.7.1, 14.1.1.3, 14.1.8, Table 13)	H	W	W	R
4.2.8	Coating inspection and testing (IOGP S-729, 14.1.1.3, 15.1, 15.2)	W	R	R	R
4.3	Supplementary testing (if specified)				
4.3.1	Fugitive emission production test (IOGP S-729, 14.2.1)	H	W	W	R
4.3.2	Flow capacity test (IOGP S-729, 14.2.2)	H	W	W	R
4.3.3	Flow characteristic test (IOGP S-729, 14.2.3)	H	W	W	R
4.3.4	Step response test (IOGP S-729, 13.2.4, 14.2.4)	H	W	W	R
4.3.5	Stroking time test (IOGP S-729, 13.2.1, 13.2.2, 14.2.5, Table 13)	H	W	W	R
4.3.6	Low-temperature and cryogenic valves test				
4.3.6.1	Seat leakage test (IOGP S-729, 7.3, 14.2.6.1, Table 14)	H	W	W	R
4.3.6.2	Hydrostatic shell and body/bonnet/stem seal leakage test (IOGP S-729, 14.2.6.2, Table 15)	H	W	W	R
4.3.6.3	Functional test (IOGP S-729, 11.4.2, 11.5.1, 11.5.3, 12.7.1, 14.2.6.3)	H	W	W	R
5	**Release of product or service**				
5.1	Preparation for handling, packing, preservation and storage (IOGP S-729, 14.1.4.3, Clause 17)	H	W	R	R
5.2	Verification of the manufacturer record book (MRB) final documentation, certification and installation, operating and maintenance instructions manual (IOM)	H	R	S	-
5.3	Release of the item	H	H	H	H

Key
H: Hold point
W: Witness point
R: Review
S: Surveillance

Annex B
(normative)
Certification and traceability requirements

Item		Certificate type	Traceability level	Additional Requirements
Valve component	Metallic pressure containing and controlling parts including bolting, ball, plug, disk, cage, seat ring, bellows, lifting lugs and air receiver	3.1	Level II	
	Ball, plug, disk, cage and seat ring (QSL-1 and QSL-2)	2.2	Level II	
	Valve seals, gaskets and packing assembly	2.1	Level III	

NOTE 1 Certificates
Inspection certificates shall be provided in accordance with ISO 10474 or EN 10204.

NOTE 2 Traceability
A. Level I — Full traceability — Material is uniquely identified and its history tracked from manufacture through stockists (where applicable) to the manufacturer and to actual position on the equipment with specific location defined on a material placement record (the traceability to a specific location only applies to skids / packaged equipment, not to bulks).
B. Level II — Type traceability — The manufacturer maintains a system to identify material throughout manufacture, with traceability to a material certificate.
C. Level III — Compliance traceability — The manufacturer maintains a system of traceability that enables a declaration of compliance to be issued by the manufacturer.

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