

GENERAL SPECIFICATION

SUBSEA SYSTEMS

GS EP SPS 025

Subsea Valve Actuators

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General Specification		GS EP SPS 025
Subsea Valve Actuators		
Rev.: 06	Effective date: 10/2015	Page: 2 of 15

Contents

1. Scope	4
2. Reference Documents	4
3. Terms and Definitions.....	5
3.1 Abbreviated Terms.....	5
4. Requisition and Valve Datasheet.....	6
5. Materials and Manufacturing.....	6
6. Actuator Assemblies.....	7
6.1 General Requirements	7
6.2 Design Requirements.....	8
6.3 Requirements for Position Indicators.....	9
6.4 Interfaces with the Control System.....	10
6.5 Requirements for Retrievable Actuators.....	10
7. Hydraulic Actuators	11
8. Electric Actuators	12
9. ROV Override Mechanisms	12
10. Qualification Testing.....	13
10.1 General Requirements	13
11. FAT Testing	14
11.1 Actuator Testing Requirements.....	14
11.2 Valve and Actuator Assembly Testing Requirements	14
12. Acceptance Criteria.....	14
13. External Coating.....	14
14. Inspection and NDT.....	15
15. Mechanical Completion	15
16. Marking	15



General Specification		GS EP SPS 025
Subsea Valve Actuators		
Rev.: 06	Effective date: 10/2015	Page: 3 of 15

17. Packing and Preservation	15
18. Documentation	15
18.1 Documentation.....	15
18.2 Certification.....	15

Subsea Valve Actuators

Rev.: 06

Effective date: 10/2015

Page: 4 of 15

1. Scope

This document provides general Company requirements and overall recommendations for function, design and testing of subsea valve actuators. This Specification is intended to establish the technical and functional requirements while allowing flexibility to benefit from Contractor/manufacturer experience and expertise.

This Specification covers both hydraulic and electric powered actuators, including ROV override systems. Manual actuators (gearboxes and direct drives) are not covered by this Specification.

The actuators may be integrally assembled onto the valve, individually retrievable or retrievable with valve internals (as for insert choke valves).

2. Reference Documents

This technical specification is to be read in conjunction with **GS EP SPS 001** and the other Company specifications and standards identified herein.

External Documents

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the effective date of this document.

Reference	Title
API RP 17H	Remotely Operated Vehicle Interfaces on Subsea Production Systems
API SPEC 17D	Design and Operation of Subsea Production Systems - Subsea Wellhead and Tree Equipment
API SPEC 6A / ISO 10423	Specification for Wellhead and Christmas Tree Equipment
API STD 17F	Standard for Subsea Production Control Systems
ISO 10474	Metallic products - Inspection documents

Total General Specifications

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published in the applicable yearly collection.

Reference	Title
GS EP SPS 001	Subsea Production Systems General Design Requirements
GS EP SPS 004	Subsea Valves
GS EP SPS 006	Service valves in subsea stations
GS EP SPS 009	Corrosion protection of subsea stations
GS EP SPS 010	Preservation requirements for subsea package
GS EP SPS 011	Mechanical Completion of Subsea Package

Subsea Valve Actuators

Rev.: 06

Effective date: 10/2015

Page: 5 of 15

Reference	Title
GS EP SPS 016	Subsea Choke Valves
GS EP SPS 019	Subsea production control system
GS EP SPS 021	Subsea mateable electrical/optical connectors
GS EP SPS 023	Cleaning and flushing of hydraulic systems
GS EP SPS 029	Metallic Materials for Subsea Production Facilities
GS EP SPS 035	Material specification for Duplex 22Cr and Superduplex 25Cr stainless steel subsea equipments

3. Terms and Definitions

Technical terms and definitions are listed in [API SPEC 6A / ISO 10423](#) and API 17 series.

For the purpose of this document, the following terms and definitions apply:

Company	TOTAL E&P
Contractor	Contractor appointed by the Company for the supply of the equipment.
Manufacturer	The party(s) which manufactures and/or supplies materials, equipment, technical documents/drawings and services to perform the duties specified by Company.
‘Shall’	‘Shall’ is used to indicate requirements which are to be strictly followed in order to conform to the specification and acceptance by all parties.
‘Should’	‘Should’ is used to indicate that among several possibilities one is the recommended as particularly suitable without mentioning or excluding others, or that a certain course of action is preferred but not necessarily required.
‘May’	‘May’ is used to indicate a course of action permissible within the limits of the specification. An optional course of action.
‘Can’	‘Can’ is used for statements of possibility and capability, whether material, physical or capable.

3.1 Abbreviated Terms

API	American Petroleum Institute
CP	Cathodic Protection
FAT	Factory Acceptance Test
GS	General Specification
HISC	Hydrogen Induced Stress Cracking
ISO	International Standardisation Organisation
LAF	Load Amplification Factor