

DEP SPECIFICATION

**HIGH PRESSURE SUBSEA VALVES
(AMENDMENTS/SUPPLEMENTS TO SECTION 7.10 OF
ISO 13628-4/API 17D)**

DEP 37.80.01.30-Gen.

February 2017

ECCN EAR99

DESIGN AND ENGINEERING PRACTICE

DEM1



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These views are based on the experience acquired during involvement with the design, construction, operation and maintenance of processing units and facilities. Where deemed appropriate DEPs are based on, or reference international, regional, national and industry standards.

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The information set forth in these publications is provided to Shell companies for their consideration and decision to implement. This is of particular importance where DEPs may not cover every requirement or diversity of condition at each locality. The system of DEPs is expected to be sufficiently flexible to allow individual Operating Units to adapt the information set forth in DEPs to their own environment and requirements.

When Contractors or Manufacturers/Suppliers use DEPs, they shall be solely responsible for such use, including the quality of their work and the attainment of the required design and engineering standards. In particular, for those requirements not specifically covered, the Principal will typically expect them to follow those design and engineering practices that will achieve at least the same level of integrity as reflected in the DEPs. If in doubt, the Contractor or Manufacturer/Supplier shall, without detracting from his own responsibility, consult the Principal.

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PART I INTRODUCTION

1.1 SCOPE

This DEP specifies requirements and gives recommendations for the design, manufacture, inspection and testing of subsea valves in high pressure service.

This DEP is based on section 7.10 of ISO 13628-4, Dec 2010/API 17D, Second Edition, May 2011.

Part III of this DEP amends, supplements and deletes various clauses of section 7.10 of ISO 13628-4/API 17D.

Part III follows the clause numbering of ISO 13628-4/API 17D for easy reference.

All clauses of section 7.10 of ISO 13628-4/API 17D not modified by this DEP remain valid as written.

In this DEP, ISO 13628-4:2010 and API 17D:2011 are considered to be equivalent and to provide the same technical result for a particular provision.

Refer to DEP 37.80.00.35 for valves with pressure ratings below PN 420 (ASME Class 2500) as well as pressure ratings of 34.5 MPa (5000 psi), and below, that are not covered by this DEP.

This DEP contains mandatory requirements to mitigate process safety risks in accordance with Design Engineering Manual (DEM) 1 – Application of Technical Standards.

1.2 DISTRIBUTION, INTENDED USE AND REGULATORY CONSIDERATIONS

Unless otherwise authorised by Shell GSI, the distribution of this DEP is confined to Shell companies and, where necessary, to Contractors and Manufacturers/Suppliers nominated by them. Any authorised access to DEPs does not for that reason constitute an authorization to any documents, data or information to which the DEPs may refer.

This DEP is intended for use in offshore facilities related to oil and gas production. This DEP may also be applied in other similar facilities.

When DEPs are applied, a Management of Change (MOC) process shall be implemented; this is of particular importance when existing facilities are to be modified.

If national and/or local regulations exist in which some of the requirements could be more stringent than in this DEP, the Contractor shall determine by careful scrutiny which of the requirements are the more stringent and which combination of requirements will be acceptable with regards to the safety, environmental, economic and legal aspects. In all cases the Contractor shall inform the Principal of any deviation from the requirements of this DEP which is considered to be necessary in order to comply with national and/or local regulations. The Principal may then negotiate with the Authorities concerned, the objective being to obtain agreement to follow this DEP as closely as possible.

1.3 DEFINITIONS

1.3.1 General definitions

The **Contractor** is the party that carries out all or part of the design, engineering, procurement, construction, commissioning or management of a project or operation of a facility. The Principal may undertake all or part of the duties of the Contractor.

The **Manufacturer/Supplier** is the party that manufactures or supplies equipment and services to perform the duties specified by the Contractor.

The term **Manufacturer** means Manufacturer/Supplier when used in Part III of this document.

The **Principal** is the party that initiates the project and ultimately pays for it. The Principal may also include an agent or consultant authorised to act for, and on behalf of, the Principal.

In ISO 13628-4, the term Purchaser is used. In this DEP, the term Purchaser shall be understood to mean the Principal.

The word **shall** indicates a requirement.

The capitalised term **SHALL [PS]** indicate a process safety requirement.

The word **should** indicates a recommendation.

The word **may** indicates a permitted option.

1.3.3 Abbreviations

Term	Definition
CRA	Corrosion Resistant Alloy
CSR	Crack Surface Ratio
MESC	Materials and Equipment Standards and Codes
PLET	Pipeline End Termination
ROV	Remotely Operated Vehicle

1.4 CROSS-REFERENCES

Where cross-references to other parts of this DEP are made, the referenced section or clause number is shown in brackets (). Other documents referenced by this DEP are listed in (Part IV).

1.5 SUMMARY OF MAIN CHANGES

This DEP is a revision of the DEP of the same number dated February 2014. The changes followed a requirements quality review and were not a full technical update. The following are the main, non-editorial changes.

Section/Clause	Change
All	Restructured and clarified requirements, enforced use of shall/should/may for normative statements.

1.6 COMMENTS ON THIS DEP

Comments on this DEP may be submitted to the Administrator using one of the following options:

Shell DEPs Online (Users with access to Shell DEPs Online)	Enter the Shell DEPs Online system at https://www.shelldeps.com Select a DEP and then go to the details screen for that DEP. Click on the "Give feedback" link, fill in the online form and submit.
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DEP Standard Form (other users)	Use DEP Standard Form 00.00.05.80-Gen. to record feedback and email the form to the Administrator at standards@shell.com .

Feedback that has been registered in the DEP Feedback System by using one of the above options will be reviewed by the DEP Custodian for potential improvements to the DEP.

1.7 DUAL UNITS

This DEP contains both the International System (SI) units, as well as the corresponding US Customary (USC) units, which are given following the SI units in brackets. When agreed by the Principal, the indicated USC values/units may be used.

1.8 NON NORMATIVE TEXT (COMMENTARY)

Text shown in italic style in this DEP indicates text that is non-normative and is provided as explanation or background information only.

Non-normative text is normally indented slightly to the right of the relevant DEP clause.

PART II GENERAL

Part III of this DEP is written as amendments and supplements to section 7.10 of ISO 13628-4, Dec 2010/API 17D Second Edition, May 2011.

For ease of reference, the clause numbering of ISO 13628-4/API 17D has been used throughout Part III of this DEP.

1. Wherever reference is made to ISO 13628-4/API 17D it shall be understood to mean ISO 13628-4 Dec 2010/API 17D Second Edition May 2011, as amended or supplemented by this DEP.
2. Clauses in section 7.10 of ISO 13628-4/API 17D, which are not mentioned in this DEP, shall remain valid as written.