

DEP SPECIFICATION

DESIGN, FABRICATION AND TESTING REQUIREMENTS FOR DEEPWATER PROJECT VIV SUPPRESSION STRAKES FOR SCR'S, TTR'S, UMBILICALS, TLP TENDONS AND JUMPERS

DEP 37.81.10.30-Gen.

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DESIGN AND ENGINEERING PRACTICE



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1. INTRODUCTION

1.1 SCOPE

This DEP specifies requirements and gives recommendations for the design, fabrication and testing of Helical Strake Type Vortex Induced Vibrations (VIV) suppression systems to be deployed on deepwater assets worldwide. This applies to strakes to be installed on tubular members including Steel Catenary Risers (SCR's), Top Tension Risers (TTR's, including drilling, production and injection risers), umbilicals, tendons and jumpers.

The custodianship of this DEP resides with the Civil, Structures and Offshore discipline.

This is a new DEP-Gen. which supersedes the former DEP 37.81.10.30-EPP dated February 2006. See (1.5) regarding the changes.

1.2 DISTRIBUTION, INTENDED USE AND REGULATORY CONSIDERATIONS

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This DEP is intended for use in facilities related to oil and gas production, gas handling, oil refining, chemical processing, gasification, distribution and supply/marketing. 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 **Principal** is the party that initiates the project and ultimately pays for it. The Principal may also include an agent or consultant authorized to act for, and on behalf of, the Principal.

The word **shall** indicates a requirement.

The word **should** indicates a recommendation.

1.3.2 Specific definitions

Term	Definition
CRA	Corrosion Resistant Alloy
FBE	Fusion-Bonded Epoxy
HSSE	Health, Safety, Security and Environment
MOC	Management of Change

Term	Definition
MPS	Manufacturing Procedure Specification. Reference ISO 9000 Paragraphs 2.7.2.c, 2.7.2.e, 3.4.5 and 3.7.3. The MPS shall clearly define the sequence of operations and process controls to be implemented at each manufacturing step as well as specifically annotate any procedures, processing parameters, or requirements that deviate from this DEP. It is required that the PCP be approved by the Principal and Contractor, if applicable.
OD	Outside Diameter
QP	Quality Plan. Reference ISO 9000 Paragraphs 2.7.2.b and 3.7.5. The QP shall include inspection and test requirements and provide columns or spaces for the Principal and the Contractor, if applicable, to indicate 3rd-party inspector inspection activities, e.g., monitor, witness, hold points, etc. for the operations to be undertaken. It is required that the QP be approved by the Principal and the Contractor, if applicable.
SCR	Steel Catenary Riser
Suppression	To be interpreted as VIV suppression unless otherwise indicated.
Survive	For a strake system (or marine growth suppression system) to survive a loading condition, it shall meet the requirements in this specification, and not suffer any permanent deformations.
TLP	Tension Leg Platform
Tooth	The tooth or fin of a strake
TSA	Thermal-Sprayed Aluminum
TTR	Top Tensioned Riser
Tubular	Used to reference any tubular member including umbilicals, SCR's, production, injection and drilling TTR's, jumpers and TLP Tendons
VIV	Vortex Induced Vibrations

1.4 CROSS-REFERENCES

Where cross-references to other parts of this DEP are made, the referenced section number is shown in brackets (). Other documents referenced by this DEP are listed in (8).

1.5 SUMMARY OF MAIN CHANGES

This DEP is a new DEP-Gen. which supersedes the former DEP 37.81.10.30-EPP dated February 2006.

1.6 COMMENTS ON THIS DEP

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