



Exploration & Production

GENERAL SPECIFICATION

SUBSEA SYSTEMS

GS EP SPS 009

Corrosion protection of subsea stations

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1. Scope

This document defines the minimum requirements for the design, installation and commissioning of external cathodic protection and coatings of subsea production systems.

Cathodic protection shall be implemented using galvanic (or sacrificial) anodes.

This specification defines only specific aspects for subsea production systems, in complement to **GS EP COR 100**.

2. Reference documents

The reference documents listed below form an integral part of this General Specification. Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the EFFECTIVE DATE of the CONTRACT.

Standards

Reference	Title
BS 7361 - Part 1	Cathodic protection - Part 1: Code of practice for land and marine applications
EN 12473	General Principles of cathodic protection in sea water
EN 12495	Cathodic protection for fixed steel offshore structures
ISO 8044	Corrosion of materials and alloys - Basic terms and definition
ISO 12944-6	Protection paints and varnishes. Corrosion of steel structures by protective paint systems. Part 6 : laboratory performance test methods.
ISO 15156-1	Petroleum and Gas Industries-Materials for Use in H ₂ S-containing environments in oil and gas production - Part 1: General principles for selection of cracking-resistant materials
ISO 15156-2	Petroleum and Gas Industries-Materials for Use in H ₂ S-containing environments in oil and gas production - Part 2: Cracking-resistant carbon and low alloy steels, and cast irons
ISO 15156-3	Petroleum and Gas Industries-Materials for Use in H ₂ S-containing environments in oil and gas production - Part 3: Cracking-resistant CRAs (corrosion resistant alloys) and other alloys

**Professional Documents**

Reference	Title
API RP 2SK	Recommended Practice for Design and Analysis of Stationkeeping Systems for Floating Structures
ASTM A 193	Alloy Steel and Stainless Steel Bolting Materials for High-Temperature Service
DNV-RP-B401	Cathodic Protection Design
DNV-RP-F112	Design of Duplex Stainless Steel Subsea Equipment exposed to Cathodic Protection

Regulations

Reference	Title
Not applicable	

Codes

Reference	Title
Not applicable	

Other documents

Reference	Title
Not applicable	

Total General Specifications

Reference	Title
GS EP COR 100	Design of cathodic protection of offshore structures
GS EP COR 102	Design of cathodic protection of seal line by sacrificial anodes
GS EP COR 201	Supply of sacrificial anodes
GS EP COR 220	Three layer polyethylene external coating for pipelines
GS EP COR 221	Three layer polypropylene external coating for pipelines
GS EP COR 230	External laminated glass fibre/resin based coating for risers of sea line
GS EP COR 231	External elastomer based coating for risers of sea-line