



Exploration & Production

GENERAL SPECIFICATION

PIPELINES - RISERS

GS PLR 408

**Transportation of submarine cables,
umbilical and flexible pipes**

01	10/03	Change of Group name and logo
00	02/01	First issue
Rev.	Date	Notes



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1. Scope

This specification defines the minimum requirements for the transportation of cables, umbilical and flexible pipes linking fixed or floating installations. Fixed installations are mainly subsea wellheads, manifolds or fixed platforms. Floating systems can typically be tension leg platforms, FPSOS or off-loading tankers.

1.1 Field of application

This specification is concerned with the transportation of lengths of lines stored on reels and additional structures such as buoyant structure, dead weight, arch, etc.

The definition of cable, umbilical, flowline or riser also covers the flexible line or pipe itself and all top and bottom connection devices, anodes and associated equipment of the installation.

1.2 Exclusion

This specification does not cover bonded flexible pipe, off loading flexible pipe and composite compliant pipe.

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.

Where national regulations exist, their provisions and those of the standards and codes to which they refer shall apply, supplementing or amending the provisions of this document.

If there are no national regulations covering all or part of the subject of this document, the reference documents shall be strictly applied, as supplemented by the provisions of this document.

Only the main reference documents are mentioned; the CONTRACTOR shall be responsible for complying with all secondary reference documents dealing with the subject of this document.

Standards

Reference	Title
ISO 13628-2	Flexible pipe systems for subsea and marine applications

Professional Documents

Reference	Title
Bureau Veritas NI364 DTO R00E	No-bonded flexible steel pipes used as flowlines
API specification 17J	Flexible pipe systems for subsea and marine applications



Regulations

Reference	Title
Not applicable	

Codes

Reference	Title
Not applicable	

Other documents

Reference	Title
Not applicable	

Total General Specifications

The provisions of this document shall be applied in the light of the supplementary documents supplied by the OWNER, including:

- Country specificity appendices
- Job specification
- Data sheets
- Articles and conditions; list of tasks
- Quality assurance provisions.

Reference	Title
GS PLR 109	Design of submarine flexible pipe and risers
GS PLR 407	Load out of submarine cables, umbilical and flexible pipes
GS PLR 409	Installation of submarine cables, umbilical and flexible pipes
GS STR 401	Load out, sea-fastenning, transportation and installation of offshore structures
GS STR 403	Acceptance of support vessel for offshore works

3. Transportation requirements

3.1 Handling requirements

Handover and load out during transportation shall comply with the specification **GS PLR 407**.

3.1.1 Sea fastening

Reels shall be sea fastened, on deck and in the hold, in such way that the flexible line reels are least affected by the stresses during transportation. The sea fastening shall comply with the specification **GS STR 401**.



Cables and turnbuckles shall not be used for sea fastening.

The installation and welding of fastenings shall take into account the sensitivity of the flexible line to temperature and stresses.

3.1.2 Transportation

The transport vessel shall comply with the requirements described in the installation procedures, and have adequate capability of lifting the reels when a offshore unloading operation must be performed.

The unloading of reels in a harbour shall be checked on the basis of technical data and procedures shall contain:

- Copies of lifting crane certificates
- General map of the harbour with water depth LAT, tide, etc.
- Technical data of each reels and packages

In addition, procedures shall comply with provisions of specifications **GS STR 403**, **GS STR 401** and **GS PLR 409**.