



Exploration & Production

GENERAL SPECIFICATION

CIVIL WORKS

GS EP CIV 203

Design of harbour

03	10/08	General review
02	10/05	Revised § 2 - Addition of "EP" root to GS identification
01	09/03	Change of Group name and logo
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Rev.	Date	Notes

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1. Scope

This general specification is to define the Engineering CONTRACTOR scope of work. This specification may be subject to modification or addition if the COMPANY so considers necessary.

The harbour, which is dealt with in this specification, shall be used by the COMPANY for its sea or river installations and possibly to ensure commercial traffic, after agreement has been reached between the COMPANY and the government of the country in question.

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.

When local national standards, regulations and codes exist, all design, engineering, materials and construction shall conform to their latest requirements, which complete or modify the present specifications.

In case of lack of obligatory local national standards, international norms and standards will be applied.

In case of lack of international norms and standards, national norms and standards listed hereafter will be applied.

In all cases the system adopted shall be coherent, i.e. the various texts shall present no incompatibility. Any dispute shall be resolved by basing works on the most stringent text for the CONTRACTOR and at his expense.

The list of specifications and norms quoted is not exhaustive: the CONTRACTOR shall respect the secondary standards and regulations, which cover the works described in the present specification.

Certain specifications and norms may be indicated with an issue date. This is for information only and on the understanding that the most recent issue shall be used.

Standards

Reference	Title
ISO 8385	International standards and codes Ships and Marine Technology - Dredgers - Classification
NF EN 1992	European standards and codes Eurocode 2 : Design of concrete structures
NF ENV 1997-1	Eurocode 7: Calcul géotechnique - Partie 1: Règles générales (Geotechnical design, Part 1: general rules)
NF ENV 1998-5	Eurocode 8: design provisions for earthquake resistance of structures and National Application Document - Part 5 : foundations, retaining structures and geotechnical aspects

Reference	Title
EN 10248	Hot Rolled Sheet Piling of Non Alloy Steels - Part 1: Technical Delivery Conditions - Part 2: Tolerances on Shape and Dimensions
EN 10249	Cold Formed Sheet Piling of Non Alloy Steels - Part 1: Technical Delivery Conditions - Part 2: Tolerances on Shape and Dimensions
EN 13383	Armourstone
	French Standards and Codes
NF A 05-251	Corrosion par les sols - Evaluation de la corrosivité - Ouvrages en acier enterrés (palplanches et pieux) (Corrosion by soils - Corrosion evaluation - Buried steel structures (Sheet piles and piles))
FD A 45-025	Produits en acier - Palplanches laminées à chaud en aciers non alliés - Dimensions et caractéristiques des sections (décembre 99) (Steel products - Hot rolled steel piles - Sections dimensions and characteristics)
FD A 45-035	Produits en acier - Palplanches laminées à froid en aciers non alliés - Dimensions et caractéristiques des sections (décembre 99) (Steel products - Cold rolled steel piles - Sections dimensions and characteristics)
	American Standards
ASTM A328/A328M	Specifications for Steel Sheet Piling
ASTM A690/A690M	Specification for High-Strength Low-Alloy Steel H-piles and Sheet Piling for Use in Marine Environments
ASTM A857/A857M	Specifications for Steel Sheet Piling, Cold-Formed, Light Gage
ASTM D5313	Test Method for Evaluation of Durability of Rock for Erosion Control under Wetting and Drying Conditions
ASTM D5519	Test Method for Particle Size Analysis of Natural and Man-Made Riprap Materials
ASTM D5779	Test Method for Field Determination of Apparent Specific Gravity of Rock and Man-Made Materials for Erosion Control
ASTM D6092	Guide for Specifying Standard Sizes of Stone for Erosion Control
ASTM F1244	Specification for Berths, Marine
ASTM F1309	Practice for Installation Procedures for Fitting Chocks to Marine Machinery Foundations

Reference	Title
	English standards and codes
BS 3900-F10	Methods of Test for Paints - Determination of Resistance to Cathodic Disbonding of Coatings for Use in Marine Environments
BS 6349-1	Maritime Structures - Code of Practice for General Criteria
BS 6349-2	Maritime Structures - Design of Quay Walls, Jetties and Dolphins
BS 6349-3	Maritime Structures - Design of Dry Docks, Locks, Slipways and Shipbuilding Berths, Shiplift and Dock and Lock Gates
BS 6349-4	Maritime Structures - Code of Practice for Design of Fendering and Mooring Systems
BS 6349-6	Maritime Structures - Design of Inshore Moorings and Floating Structures
BS 6349-7	Maritime Structures - Guide to the Design and Construction of Breakwaters
BS 7361-1	Cathodic Protection - Code of Practice for Land and Marine Applications
BS 8005-4	Sewerage - Guide to Design and Construction of Outfalls
ISO 17 357	Ships and Marine Technology - Floating Pneumatic Rubber Fenders

Professional Documents

Reference	Title
	French documents
LCPC	Recommandation pour le choix des paramètres de calcul des écrans de soutènement par la méthode aux modules de réaction - Note d'information technique (1984) (Recommendations on parameters choice for retaining diaphragms by reaction modulus method)
Recommandations TA 95	Tirants d'ancrage - (Anchorage ties) - Comité Français de la mécanique des Sols
SETRA	Choc de bateau sur une pile de pont (BT n° 10-1975) (Ship chocks on a bridge pier)
AFPS	Recommandation AFPS 90 pour la rédaction de règles relatives aux ouvrages et installations à réaliser dans les régions sujettes aux séismes (tome 1: 1990, tome 2: 1993, tome 3: 1994, publiés aux Presses de l'ENPC) (Recommendations for rules concerning structures and installations to be constructed in seismic regions)
Rock Manual 2007	The use of rock in hydraulic engineering