

DEP SPECIFICATION

GROUTING OF EQUIPMENT AND STRUCTURE BASES

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DESIGN AND ENGINEERING PRACTICE



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1. INTRODUCTION

1.1 SCOPE

This new DEP specifies requirements and gives recommendations for the supply and installation of grout for equipment and structural column baseplates. The following aspects are covered:

- Engineering;
- materials and labour necessary for the formwork;
- proper mixing, placing, finishing and curing;
- supervision.

Grouting refers to all work to be carried out to properly fill the spaces between concrete surfaces and baseplates of equipment, steel structures or prefabricated concrete elements with mortar in order to achieve adequate transfer of horizontal and vertical forces.

Although injection of grout for concrete tendons is not part of this DEP, some requirements herein may be used as guidance in these works.

For the installation of grout for rotating equipment and other equipment subject to vibration, this DEP supplements the requirements of Part V of API RP 686.

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 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 should 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 **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.

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

The word **shall** indicates a requirement.

The word **should** indicates a recommendation.

1.3.2 Specific definitions

Term	Definition
Cement based grout	Cement based grouts are used to fill voids and cracks in pavements, building and dam foundations, and brick and concrete masonry wall assemblies; between baseplates or soleplates and foundation; to construct floor toppings or provide flooring underlayment; to place ceramic tile; and to bind preplaced-aggregate concrete.
Epoxy grout	A two part grout system consisting of epoxy resin and epoxy hardener. Made to have impervious qualities, stain and chemical resistant. Used to fill joints between tiles, anchors, baseplates, etc.
Grouting	Grouting refers to all work to be carried out to properly fill the spaces between concrete surfaces and baseplates of equipment, steel structures or prefabricated concrete elements with mortar in order to achieve adequate transfer of horizontal and vertical forces.
Technical Authority	Refer to the DCAF system.

1.4 CROSS-REFERENCES

Where cross-references to other parts of this DEP are made, the reference section number is shown in brackets (). Other documents referenced by this DEP are listed in (6).

1.5 COMMENTS ON THIS DEP

Comments on this DEP may be sent to the Administrator at standards@shell.com, using the DEP Feedback Form. The DEP Feedback Form can be found on the main page of "DEPs on the Web", available through the Global Technical Standards web portal <http://www.shell.com/standards> and on the main page of the DEPs DVD-ROM.

1.6 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.