

Title (en)

Soil improvement process using jet grouting which provides high grouting material savings

Title (de)

Bodenverbesserungsprozess unter Verwendung eines Düsenstrahlinjektionsverfahren, das hohe Injektionsmaterialeinsparungen bietet

Title (fr)

Procédé d'amélioration du sol utilisant le jet grouting, permettant d'importantes économies de matériel d'injection

Publication

**EP 1795655 A1 20070613 (EN)**

Application

**EP 06024991 A 20061204**

Priority

IT PR20050076 A 20051207

Abstract (en)

The invention finds application in the field of soil improvement processes and particularly relates to a process known as "jet grouting" in which a mixture of cement and water is injected in the soil under high pressure (above 200 bar). The process of this invention includes: a first simple drilling step using a downwardly advanced tool for exploration of the soil to be stabilized; a second soil precutting step across an area of the same size as the intended stabilization area, such precutting step being performed using a downwardly advanced tool and high pressure water and air jetting; a third grouting step by high pressure jetting of a mixture of cement or grouting material, using a tool which is moved upwards and outwards from the bottom; such third step is carried out while monitoring the material flowing out of the hole formed in the first drilling step.

IPC 8 full level

**E02D 3/12** (2006.01)

CPC (source: EP)

**E02D 3/12** (2013.01)

Citation (applicant)

- DE 3712151 A1 19881027 - GKN KELLER GMBH [DE]
- GB 2227037 A 19900718 - NIT CO LTD [JP]

Citation (search report)

- [X] DE 3712151 A1 19881027 - GKN KELLER GMBH [DE]
- [X] WO 8703319 A1 19870604 - HOKSRUD LARS OEIVIND
- [X] GB 2227037 A 19900718 - NIT CO LTD [JP]
- [A] US 5234289 A 19930810 - NAKANISHI WATARU [JP], et al
- [A] GB 2279382 A 19950104 - NAKASHIMA SHIRO [JP], et al

Cited by

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Designated contracting state (EPC)

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