

Title (en)
PROCESS FOR CONSOLIDATION OF SOILS AND/OR BUILDING STRUCTURES IN CONTACT WITH THEM, AND RELATED DEVICE

Title (de)
PROZESS FÜR DIE VERDICHTUNG VON BÖDEN UND/ODER BAUSTRUKTUREN IM KONTAKT MIT IHNEN, UND VERWANDTEM GERÄT

Title (fr)
LE PROCESSUS POUR LA CONSOLIDATION DE SOLS ET-OU STRUCTURES DE BÂTIMENT EN CONTACT AVEC EUX ET L'ARTIFICE RATTACHÉ

Publication
EP 3037586 B1 20170719 (EN)

Application
EP 15201468 A 20151221

Priority
IT MI20142222 A 20141223

Abstract (en)
[origin: EP3037586A1] The process allows soils (20) and/or building structures (22) to be consolidated and consists of: producing in the soil (20), by means of drilling, at least one hole using a drill rod (10) with a drill bit (18) of single use type, the drill rod (10) comprising several hollow drill bars (12) arranged consecutively and connected to one another by means of coaxial sleeves (14), at least one of the sleeves (14) being provided with at least one lateral through opening (16) that places the inside of the sleeve (14) in communication with the outside, this opening (16) being closed by a check valve adapted to open when the pressure inside the sleeve (14) exceeds a predetermined value; leaving the drill rod (10) in the hole bored in the soil, so as to act as reinforcement; injecting into the drill rod (10), through the outer end thereof, at a pressure that causes opening of the check valves provided in the holes (16) of the sleeves (14), an expanding substance adapted to consolidate the surrounding soil and to constrain thereto the drill rod (10) acting as reinforcement. The device comprises the above drill rod.

IPC 8 full level
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CPC (source: EP)
E02D 3/12 (2013.01); **E02D 5/46** (2013.01); **E02D 15/04** (2013.01); **E02D 3/123** (2013.01)

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WO2020011414A1; CN113152457A; CN106948348A; IT201800007020A1; US11535998B2

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