

Title (en)

REINFORCED CONCRETE COLUMN IN A GROUND EXCAVATION AND METHOD FOR BUILDING SAID COLUMN

Title (de)

STAHLBETONSTÜTZE IN ERDAUSHEBUNGEN UND VERFAHREN ZUM BAUEN DIESER STÜTZE

Title (fr)

COLONNE EN BETON ARME PLACEE DANS UNE EXCAVATION ET PROCEDE D'ERECTION CORRESPONDANT

Publication

**EP 1634999 A4 20060628 (DE)**

Application

**EP 04721401 A 20040317**

Priority

- RU 2004000100 W 20040317
- RU 2003116153 A 20030602
- RU 2003132805 A 20031112

Abstract (en)

[origin: US2004237435A1] A reinforced-concrete column contains reinforcing cage and inserts made monolithic with concrete mix and comprises the upper bearing and lower foundation parts. The method of construction of the column includes operations of manufacture of the column reinforcing cage with inserts, placement of concrete in the non-removable casing in the project position in single- or multi-slit pit with the column making monolithic. The column reinforcing cage is loaded vertically into the pit, centered vertically, and the upper part is fixed from horizontal displacements, the lower foundation part of the column and the inner part of the non-removable casing with the closed-type casing in the upper bearing part of the column are made monolithic with concrete from down to top. After making monolithic, the soil base is widened and cemented via the process pipeline placed inside the reinforcing cage; the space between the non-removable casing and the pit walls in the upper bearing part is filled with granular material.

IPC 1-7

**E02D 5/38; E02D 5/60**

IPC 8 full level

**E02D 5/48 (2006.01); E04C 3/34 (2006.01); E04C 5/06 (2006.01); E02D 5/44 (2006.01)**

CPC (source: EP US)

**E02D 5/48 (2013.01 - EP US); E04C 3/34 (2013.01 - EP US); E04C 5/0604 (2013.01 - EP US); E02D 5/44 (2013.01 - EP US)**

Citation (search report)

- [A] US 1706002 A 19290319 - SIPE GEORGE B
- [A] CH 691691 A5 20010914 - VARINORM AG [CH]
- [A] DE 2724680 A1 19781207 - DYCKERHOFF & WIDMANN AG
- [A] PATENT ABSTRACTS OF JAPAN vol. 016, no. 487 (M - 1323) 9 October 1992 (1992-10-09)
- See references of WO 2004106640A1

Cited by

CN102251520A; CN106192993A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**US 2004237435 A1 20041202; US 7445405 B2 20081104;** AT E364754 T1 20070715; DE 502004004096 D1 20070726;  
EP 1634999 A1 20060315; EP 1634999 A4 20060628; EP 1634999 B1 20070613; ES 2288680 T3 20080116; UA 76914 C2 20060915;  
US 2008304918 A1 20081211; US 7585134 B2 20090908; WO 2004106640 A1 20041209

DOCDB simple family (application)

**US 85456504 A 20040525;** AT 04721401 T 20040317; DE 502004004096 T 20040317; EP 04721401 A 20040317; ES 04721401 T 20040317;  
RU 2004000100 W 20040317; UA A200503389 A 20040317; US 19355408 A 20080818