

Title (en)
ENCASEMENT ASSEMBLY FOR INSTALLATION OF SUB-SURFACE REFRIGERANT TUBING IN A DIRECT EXCHANGE HEATING/COOLING SYSTEM

Title (de)
GEHÄUSEANORDNUNG ZUR INSTALLATION EINER UNTERIRDISCHEN KÄLTEMITTELROHRLEITUNG IN EINEM HEIZ-/KÜHLSYSTEM MIT DIREKTEM AUSTAUSCH

Title (fr)
ENSEMBLE FORMANT UNE ENVELOPPE PERMETTANT L'INSTALLATION DE TUBAGE RÉFRIGÉRANT DE SUB-SURFACE DANS UN SYSTÈME DE CHAUFFAGE / REFROIDISSEMENT À ÉCHANGE DIRECT

Publication
EP 2076720 A4 20131127 (EN)

Application
EP 06815890 A 20060929

Priority
US 2006038220 W 20060929

Abstract (en)
[origin: WO2008039202A1] An encasement assembly (1) for installing sub-surface refrigerant tubing in a direct exchange heating/cooling system includes a weighted and protective encasement tube (2) for lowering the bottom distal U-bend portion (8) of the refrigerant tubing into a well/borehole (21). The encasement tube (2) has a main body portion and a rounded or cone-shaped nose. The U-bend portion of the distal end of the refrigerant transport lines (5, 6) is encased within a cementitious grout (15) inside the tube (2). The grout (15) inside the encasement tube (2) has a flat top portion to prevent upward flotation and at least one eyebolt (11) for securing a trimmie tube (14) with an expendable wire (19) during installation. An optional nose ring (34) is attached to the lower distal end of the tube (2) for marker float (39) attachment in water.

IPC 8 full level
F24J 3/08 (2006.01); **F25D 23/12** (2006.01)

CPC (source: EP KR)
F24T 10/15 (2018.04 - EP); **F25B 30/06** (2013.01 - EP KR); **F24T 2010/53** (2018.04 - EP); **Y02E 10/10** (2013.01 - EP)

Citation (search report)

- [XII] US 6789608 B1 20040914 - WIGGS B RYLAND [US]
- [XDI] US 5816314 A 19981006 - WIGGS B RYLAND [US], et al
- [A] US 5758724 A 19980602 - AMERMAN THOMAS R [US]
- See references of WO 2008039202A1

Designated contracting state (EPC)
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DOCDB simple family (publication)
WO 2008039202 A1 20080403; AU 2006348699 A1 20080403; AU 2006348699 B2 20110804; BR PI0622057 A2 20140506; CA 2664644 A1 20080403; CN 101542216 A 20090923; CN 101542216 B 20111207; EG 25600 A 20120318; EP 2076720 A1 20090708; EP 2076720 A4 20131127; IL 197866 A0 20091224; IL 197866 A 20130627; JP 2010505086 A 20100218; JP 5079009 B2 20121121; KR 20090077804 A 20090715; MX 2009003346 A 20090828

DOCDB simple family (application)
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