

Title (en)  
CRYOGENIC FLUID INJECTION SYSTEM FOR PROCESSING PRODUCTS IN BULK AND METHOD OF COOLING IMPLEMENTING SAID SYSTEM

Title (de)  
KRYOGENES FLÜSSIGKEITSINJEKTIONSSYSTEM ZUR MASSENVERARBEITUNG VON PRODUKTEN SOWIE KÜHLVERFAHREN MIT DIESEM SYSTEM

Title (fr)  
SYSTÈME D'INJECTION DE FLUIDE CRYOGÉNIQUE PERMETTANT LE TRAITEMENT DE PRODUITS EN VRAC ET PROCÉDÉ DE REFROIDISSEMENT LE METTANT EN OEUVRE

Publication  
**EP 2041026 B2 20240424 (FR)**

Application  
**EP 07803959 A 20070628**

Priority  
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Abstract (en)  
[origin: WO2008007000A2] The injection device (3) according to the invention, intended to be attached to the wall of the bottom of a container containing a product to be cooled in bulk, comprises a hollow cylindrical body in which a valve (17) forced by a spring (19) is inserted, a through-channel (18) appreciably parallel to said valve intended to be fed by pressurized cryogenic fluid, one end of said through-channel being connected to the cryogenic fluid feed system and the opposite end opening into the seat (13) of the valve.

IPC 8 full level  
**F25D 3/12** (2006.01); **B05B 1/32** (2006.01); **C01B 32/55** (2017.01)

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**B01F 35/91** (2022.01 - EP US); **B05B 1/3073** (2013.01 - EP US); **B05B 1/323** (2013.01 - EP US); **B05B 15/65** (2018.02 - EP US); **F25D 3/12** (2013.01 - BR EP US); **B01F 35/91** (2022.01 - BR); **B01F 2035/98** (2022.01 - BR EP US); **B05B 1/3073** (2013.01 - BR); **B05B 1/323** (2013.01 - BR); **B05B 15/65** (2018.02 - BR); **F25D 3/10** (2013.01 - BR EP US)

Citation (opposition)  
Opponent :  
• US 3815377 A 19740611 - TYREE L  
• US 3672181 A 19720627 - TYREE LEWIS JR  
• CN 2348096 Y 19991110 - PETROLEUM ENGINEERING TECHNOLO [CN]

Cited by  
WO2011070283A1

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

DOCDB simple family (publication)  
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