

Title (en)  
PISTON PUMP FOR THICK MATTER

Title (de)  
KOLBENPUMPE FÜR DICKSTOFFE

Title (fr)  
POMPE A PISTON POUR SUBSTANCES EPAISSES

Publication  
**EP 2002121 A1 20081217 (DE)**

Application  
**EP 07723523 A 20070323**

Priority  
• EP 2007002572 W 20070323  
• DE 102006016083 A 20060404

Abstract (en)  
[origin: US2010232996A1] The invention relates to a piston pump for thick matter, in particular for high-solids sewage sludge, coal sludge and concrete. The piston pump has at least one delivery cylinder (16) which contains a motor-driven or hydraulically driven delivery piston (20) and which has an orifice (12) which communicates alternately with the interior of a material feed container (10) and with a pressure delivery line (30) in a slide-controlled manner in accordance with the movement of the delivery piston (20). In order to significantly increase the degree of filling of the at least one delivery cylinder (16), an annular nozzle (32) opening into the delivery cylinder (16) in the region of the orifice (12) is provided, and this annular nozzle (32) is connected to an external pressure line (34) to which a lubricant can be admitted.

IPC 8 full level  
**F04B 15/02** (2006.01)

CPC (source: EP US)  
**F04B 15/02** (2013.01 - EP US)

Cited by  
FR3105207A1; WO2021130444A1; FR3112089A1; FR3105252A1; WO2021130445A1

Designated contracting state (EPC)  
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)  
**US 2010232996 A1 20100916**; AT E484676 T1 20101015; CA 2647794 A1 20071018; CN 101410619 A 20090415;  
DE 102006016083 A1 20071011; DE 502007005346 D1 20101125; EP 2002121 A1 20081217; EP 2002121 B1 20101013;  
JP 2009532616 A 20090910; JP 5202512 B2 20130605; WO 2007115665 A1 20071018

DOCDB simple family (application)  
**US 22577507 A 20070323**; AT 07723523 T 20070323; CA 2647794 A 20070323; CN 200780011201 A 20070323;  
DE 102006016083 A 20060404; DE 502007005346 T 20070323; EP 07723523 A 20070323; EP 2007002572 W 20070323;  
JP 2009503453 A 20070323