

Title (en)  
METHOD FOR CLEANING CYLINDRICAL LONG-DIMENSIONAL PRODUCTS AND DEVICE FOR IMPLEMENTING SAME

Title (de)  
VERFAHREN ZUR REINIGUNG VON ZYLINDRISCHEN LANGPRODUKTEN UND VORRICHTUNG ZUR DURCHFÜHRUNG DES VERFAHRENS

Title (fr)  
PROCÉDÉ DE NETTOYAGE D'ARTICLES CYLINDRIQUES DE DIMENSIONS LONGUES ET PROCÉDÉ DE MISE EN UVRE

Publication  
**EP 3323518 A4 20190417 (EN)**

Application  
**EP 16899575 A 20160421**

Priority  
RU 2016000232 W 20160421

Abstract (en)  
[origin: EP3323518A1] The inventions relate to the processing of rolled metal products, and specifically to cleaning-away process lubricants, and may be used in the cleaning of long-dimensional products (pipes, wire, rods) following cold rolling and drawing, and before applying various types of coatings, and also for finishing the surfaces of products. In a method for cleaning cylindrical longdimensional products, said products are passed through a toroidal chamber having an outlet nozzle. A rotating flow of aqueous washing solution and compressed air are fed into the chamber via inlet nozzles, creating turbulence in a gas-liquid flow in the outlet nozzle, wherein the pressure of the flow of aqueous solution is changed from 20 atmospheres to 1 atmosphere in order to form a pulsating gas-liquid flow which is fed as a counter-current toward a product. Following cleaning, products are rinsed with water and dried using compressed air in similar toroidal chambers, with each medium being fed as a counter-current toward the product. A cleaning device contains a toroidal chamber with two tangential inlet nozzles and a coaxially-disposed outlet nozzle. Between two and ten channels are provided in the outlet nozzle, the longitudinal axes of which are disposed tangentially to the surface of a product. The use of the inventions generates hydrodynamic and surface cavitation, and increases the effectiveness and quality of cleaning.

IPC 8 full level  
**B08B 3/08** (2006.01); **B08B 3/02** (2006.01); **B08B 9/023** (2006.01)

CPC (source: EP RU)  
**B08B 3/02** (2013.01 - EP); **B08B 3/022** (2013.01 - EP); **B08B 3/024** (2013.01 - RU); **B08B 3/08** (2013.01 - EP RU); **B08B 9/023** (2013.01 - EP RU); **B21B 45/0284** (2013.01 - EP); **C23G 5/00** (2013.01 - EP)

Citation (search report)

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- See also references of WO 2017184010A1

Designated contracting state (EPC)  
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**EP 16899575 A 20160421**; CN 201680084849 A 20160421; EA 201890284 A 20160421; RU 2016000232 W 20160421; RU 2017100051 A 20160421