

Title (en)  
VERTICAL ROTATION UNIT

Title (de)  
VERTIKALE DREHEINHEIT

Title (fr)  
UNITÉ DE ROTATION VERTICALE

Publication  
**EP 4051471 A4 20230726 (EN)**

Application  
**EP 19950934 A 20191101**

Priority  
TR 2019050915 W 20191101

Abstract (en)  
[origin: WO2021086278A1] The invention is related to a vertical rotation unit (10) developed to be used in the toilet machine with robotic high pressure ring adhesion in the sanitary ware sector. Said vertical rotation unit (10), provides casted semi-finished products flat without formation of any defect by means of making the counter gravity casting possible. Said vertical rotation unit (10) allows for selecting a lower capacity robot by decreasing the total load of the robot and thus it both decreases the costs and extends the lifecycle of the product.

IPC 8 full level  
**B28B 1/26** (2006.01); **B25J 15/00** (2006.01); **B28B 17/00** (2006.01)

CPC (source: EP)  
**B28B 7/08** (2013.01); **B28B 17/00** (2013.01); B28B 1/265 (2013.01)

Citation (search report)  
• [XI] WO 2007132198 A1 20071122 - PCL CERAMICS LTD [GB], et al  
• [XI] CN 209337555 U 20190903 - FENG RUOQI  
• [XI] JP 2002145448 A 20020522 - KAWASAKI HEAVY IND LTD  
• [XI] JP H06199325 A 19940719 - TAKESHITA SANGYO KK  
• See also references of WO 2021086278A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2021086278 A1 20210506**; EP 4051471 A1 20220907; EP 4051471 A4 20230726; EP 4051471 B1 20240904

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