Title (en)

BLAST MACHINING METHOD AND BLAST MACHINING DEVICE

Title (de)

STRAHLBEARBEITUNGSVERFAHREN UND STRAHLBEARBEITUNGSVORRICHTUNG

Title (fr)

MÉTHODE D'USINAGE PAR SABLAGE ET DISPOSITIF D'USINAGE PAR SABLAGE

Publication

EP 3061567 A1 20160831 (EN)

Application

EP 14855828 A 20140917

Priority

- JP 2013218715 A 20131021
- JP 2014058044 W 20140324
- JP 2014074515 W 20140917

Abstract (en)

Provided is a blast machining method in which static electricity-preventing effects coexist with processed volume-increasing effects. A liquid such as water is introduced in relatively small volumes of 0.06 cc/min-150 cc/min to a blast nozzle (8) provided in a blast machining device. The introduced liquid is atomized by causing the liquid to collide with a high speed compressed gas stream flowing inside the blast nozzle (8) or a high speed compressed gas stream jetted from the blast nozzle (8). The atomized liquid is jetted towards the workpiece (W) along with the compressed gas and an abrasive. As a result of the jetted liquid evaporating easily because the liquid is atomized and jetted in this manner and the volume of liquid supplied is relatively small, humidity inside the work chamber increases and generation of static electricity is limited. Additionally, the workpiece is cooled by vaporization heat being consumed during evaporation and absorption of the impact energy of the abrasive that occurs as a result of the softening of the workpiece surface due to heat generated by collision with the abrasive is limited and processed volume (cut volume) is improved.

IPC 8 full level

B24C 5/02 (2006.01); **B24C 5/04** (2006.01)

CPC (source: EP KR US)

B24C 1/08 (2013.01 - EP US); **B24C 5/02** (2013.01 - EP KR US); **B24C 5/04** (2013.01 - EP KR US); **B24C 7/0007** (2013.01 - KR); **B24C 7/0015** (2013.01 - KR)

Cited by

CN112589080A

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3061567 A1 20160831; **EP 3061567 A4 20170524**; **EP 3061567 B1 20240320**; CN 105636745 A 20160601; CN 105636745 B 20180713; JP 6452615 B2 20190116; JP WO2015060043 A1 20170309; KR 101847316 B1 20180409; KR 20160073983 A 20160627; US 2016236323 A1 20160818; WO 2015059941 A1 20150430; WO 2015060043 A1 20150430

DOCDB simple family (application)

EP 14855828 A 20140917; CN 201480056785 A 20140917; JP 2014058044 W 20140324; JP 2014074515 W 20140917; JP 2015543757 A 20140917; KR 20167012506 A 20140917; US 201415028464 A 20140917