

Title (en)

SPACER OUTLET DISTANCE CONTROL DURING VIG UNIT MANUFACTURING BY MEANS OF A DISTANCE CONTROLLER

Title (de)

ABSTANDSREGELUNG BEI DER VIG-EINHEITSHERSTELLUNG MITTELS EINES ABSTANDSREGLERS

Title (fr)

CONTRÔLE DE LA DISTANCE DE LA SORTIE D'ENTRETOISE PENDANT LA FABRICATION DE VITRAGES ISOLANTS SOUS VIDE AU MOYEN D'UN CONTRÔLEUR DE DISTANCE

Publication

EP 4357579 A1 20240424 (EN)

Application

EP 22202423 A 20221019

Priority

EP 22202423 A 20221019

Abstract (en)

The present disclosure relates to a method of manufacturing a vacuum insulating glass unit (VIG). The method comprises providing a first glass sheet (3) comprising a major surface (3a), and dispensing a plurality of spacers (2) on the major surface (3a) by means of one or more spacer dispensing systems (200). The spacer dispensing system (200) comprises a spacer storage (11) comprising a plurality of spacers (2), a dispenser (10) comprising a spacer outlet (16) for dispensing spacers (2) collected from the spacer storage (11), and a distance adjustment motor (30) configured to move the spacer outlet (16) towards and/or away from the glass sheet surface (3a). The dispensing of a plurality of spacers (2) comprises providing a spacer placement sequence to place a plurality of spacers at the major glass sheet surface (3a) by means of the dispenser (10), wherein the spacer placement sequence comprises providing a relative first movement (MOV1) between the glass sheet surface (3a) and the spacer outlet (16) in a direction along the glass sheet surface by means of a displacement motor (80), and distributing a plurality of spacers (2) from the spacer storage (11) with a mutual spacer distance (DIS4) on the glass sheet surface (3a) by means of the dispenser (10) through the spacer outlet (16). A distance controller (31) controls the distance adjustment motor (30) to move the spacer outlet (16) towards and/or away from the glass sheet surface (3a) during the spacer placement sequence based on output (32a) from a distance sensor (32).

IPC 8 full level

E06B 3/677 (2006.01); **E06B 3/66** (2006.01); **E06B 3/663** (2006.01); **E06B 3/673** (2006.01)

CPC (source: EP)

E06B 3/6612 (2013.01); **E06B 3/66304** (2013.01); **E06B 3/67326** (2013.01); **E06B 3/67365** (2013.01); **E06B 3/67369** (2013.01); **E06B 3/6775** (2013.01); **E06B 2003/67395** (2013.01)

Citation (applicant)

- WO 2019218901 A1 20191121 - LUOYANG LANDGLASS TECH CO LTD [CN]
- WO 2021208628 A1 20211021 - LUOYANG LANDGLASS TECH CO LTD [CN]
- CN 205258287 U 20160525 - LUOYANG LANDGLASS TECH CO LTD
- US 11396477 B2 20220726 - NONAKA MASATAKA [JP], et al
- CN 106045286 A 20161026 - LUOYANG LANDGLASS TECH CO LTD

Citation (search report)

[I] CN 203668211 U 20140625 - LUOYANG LANDGLASS TECH CO LTD

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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4357579 A1 20240424

DOCDB simple family (application)

EP 22202423 A 20221019