

Title (en)

VACUUM VALVE FOR A VACUUM TRANSPORT SYSTEM

Title (de)

VAKUUMVENTIL FÜR EIN VAKUUMTRANSPORTSYSTEM

Title (fr)

SOUPAPE À VIDE POUR UN SYSTÈME DE TRANSPORT SOUS VIDE

Publication

EP 4229319 A1 20230823 (DE)

Application

EP 21794524 A 20211015

Priority

- DE 102020006404 A 20201019
- EP 2021078571 W 20211015

Abstract (en)

[origin: WO2022084172A1] The invention relates to a vacuum valve for closing a valve opening for a vacuum transport system in a gas-tight manner. The vacuum transport system has a transport tube with multiple transport tube segments for transporting a vehicle in the interior along the transport tube, and the valve opening defines an opening axis. The vacuum valve additionally has: a seal surface which encircles the valve opening, a closure component for closing the valve opening in a gas-tight manner, comprising a single-piece seal, which has a closed circumference and is designed to interact with the seal surface, and a drive unit for providing a movement of the closure component relative to the valve opening such that the closure component can be moved parallel to a closure axis from an open position into a closing position and back, wherein the closure component at least partly releases the valve opening in the open position, and the seal contacts the seal surface in the closing position and closes the valve opening in a gas-tight manner. The closure axis is perpendicular to the opening axis, and the respective course of the seal surface and the seal has a first and second main section as well as two lateral sections. The two main sections lie on planes which are oriented at a right angle to the opening axis and which are mutually spaced, and the two main sections are connected by one of the lateral sections on two respective opposing faces of the main sections.

IPC 8 full level

F16K 3/02 (2006.01); **B61B 13/10** (2006.01); **B65G 54/02** (2006.01); **F16K 51/02** (2006.01)

CPC (source: EP)

B61B 13/10 (2013.01); **B65G 51/12** (2013.01); **B65G 51/18** (2013.01); **F16K 3/0227** (2013.01); **F16K 51/02** (2013.01)

Citation (search report)

See references of WO 2022084172A1

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

WO 2022084172 A1 20220428; CA 3193013 A1 20220428; CN 116234998 A 20230606; DE 102020006404 A1 20220421; EP 4229319 A1 20230823

DOCDB simple family (application)

EP 2021078571 W 20211015; CA 3193013 A 20211015; CN 202180066854 A 20211015; DE 102020006404 A 20201019; EP 21794524 A 20211015