

Title (en)
Converter

Title (de)
Konverter

Title (fr)
Convertisseur

Publication
EP 2351880 A2 20110803 (DE)

Application
EP 11003356 A 20070402

Priority
• EP 07723883 A 20070402
• DE 102006040285 A 20060829

Abstract (en)

The rotating-nozzle converter for converting monofilaments into staple fibers, comprises rotating nozzle (14, 16), a first knife (18), and rotatable second knife (20), which is intended to operate as stationary knife for the first knife. The nozzle function is integrated into a rotor. The yarn is deflected by less than 90[deg] . The second knife is fastened at the rotor and covers a front side (26) of the rotating nozzle in segment-like manner. A first knife edge (60) of the second knife forms a secant to an outlet of the yarn. The rotating-nozzle converter for converting monofilaments into staple fibers, comprises rotating nozzle (14, 16), a first knife (18), and rotatable second knife (20), which is intended to operate as stationary knife for the first knife. The nozzle function is integrated into a rotor. The yarn is deflected by less than 90[deg] . The second knife is fastened at the rotor and covers a front side (26) of the rotating nozzle in segment-like manner. A first knife edge (60) of the second knife forms a secant to an outlet of the yarn. The knife edges of the first- and the second knife lie in a common level in an operating mode and are tipped and molded to one another. The knives are clamped against each other in the operating mode. The tipping and molding are carried out to adjust a force component between the knives during a knife process. The knife edges are intended to implement a cut of the yarn according to a shear principle. The rotating-nozzle converter has an adjusting device for knives and a collecting device for the staple fibers. The adjusting device has a sub range intended for flexible deformation. The collecting device has a box, a duct flowing into the box, an exhaust unit, and a separating device, which acts as a guide plate. The duct surrounds the knives. The rotating-nozzle converter acts with the drive around a looping drive with a looping belt having reciprocal teeth. Independent claims are included for: (1) a device with multi rotating-nozzle converters; and (2) a converter for converting monofilaments into staple fibers.

Abstract (de)

Die Erfindung bezieht sich auf einen Konverter (40) zum Konvertieren von einem oder mehreren Endlosgarn/en in Stapelfasern mit einem Garnaustritt (44) und einer Schneide (46), wobei der Garnaustritt (44) feststehend und die Schneide (46) drehbar gelagert ist, wobei der Garnaustritt (44) entlang einer Rotationsachse der Schneide (46) gerichtet ist, sowie einer zweiten Schneide (48), die einen Gegendruck zu dem von der ersten Schneide (46) entwickelten Druck aufbringt.

IPC 8 full level
D01G 1/04 (2006.01)

CPC (source: EP)
D01G 1/04 (2013.01)

Citation (applicant)
US 2173789 A 19390919 - PAUL NIKLES, et al

Cited by
EP2727694A1; WO2014067762A1; US10052654B2; EP2727693A1; WO2014067763A1; US10059042B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR MK RS

DOCDB simple family (publication)
WO 2008025382 A1 20080306; DE 202007019280 U1 20111128; EP 2057309 A1 20090513; EP 2057309 B1 20121010; EP 2351880 A2 20110803; EP 2351880 A3 20120418; EP 2351880 B1 20130703; ES 2401637 T3 20130423

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EP 2007002942 W 20070402; DE 202007019280 U 20070402; EP 07723883 A 20070402; EP 11003356 A 20070402; ES 07723883 T 20070402