

Title (en)  
AIR-JET SPINNING APPARATUS

Title (de)  
LUFTSPINNVORRICHTUNG

Title (fr)  
MACHINE À FILER À JET D'AIR

Publication  
**EP 2454403 A2 20120523 (DE)**

Application  
**EP 10734636 A 20100709**

Priority  
• CH 2010000178 W 20100709  
• CH 11152009 A 20090716

Abstract (en)  
[origin: WO2011006270A2] Disclosed is an air-jet spinning apparatus (1) comprising a nozzle body (2) and a hollow spindle (3) that has a spindle tip (8) and an longitudinal axis (7), said spindle tip (8) projecting into the nozzle body (2). A discharge duct (13) having an annular cross-sectional area is formed between an outer surface (11) of the spindle tip (8) and an inner surface (12) of the nozzle body (2). Viewed from the normal to the longitudinal axis (7) of the spindle (3), a gap width (S) is constant along the circumference of the spindle (3) at a specific point in the discharge duct (13). The outer surface (11) of the spindle tip (8) and/or the inner surface (12) of the nozzle body (2) is/are shaped such that at least two constrictions are formed within the discharge duct (13), along the extension thereof in the direction of the longitudinal axis (7) of the spindle (3). At each of said constrictions along the extension of the discharge duct (13) in the direction of the longitudinal axis (7) of the spindle (3), the discharge duct (13) has an annular cross-sectional area that is smaller than the annular cross-sectional area of the discharge duct (13) upstream and downstream of each of said at least two constrictions.

IPC 8 full level  
**D01H 1/115** (2006.01); **D01H 4/02** (2006.01)

CPC (source: EP US)  
**D01H 1/115** (2013.01 - EP US); **D01H 7/92** (2013.01 - EP US)

Citation (search report)  
See references of WO 2011006270A2

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 SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2011006270 A2 20110120; WO 2011006270 A3 20110407**; CN 102471950 A 20120523; CN 102471950 B 20150211;  
EP 2454403 A2 20120523; EP 2454403 B1 20140702; ES 2510265 T3 20141020; JP 2012533005 A 20121220; JP 5698232 B2 20150408;  
US 2012110973 A1 20120510; US 8464510 B2 20130618

DOCDB simple family (application)  
**CH 2010000178 W 20100709**; CN 201080031527 A 20100709; EP 10734636 A 20100709; ES 10734636 T 20100709;  
JP 2012519862 A 20100709; US 201013383930 A 20100709