

Title (en)

METHOD AND APPARATUS FOR PRODUCING INTERTWINING KNOTS

Title (de)

VERFAHREN UND VORRICHTUNG ZUM ERZEUGEN VON VERFLECHTUNGSKNOTEN

Title (fr)

PROCÉDÉ ET DISPOSITIF POUR PRODUIRE DES NOEUDS D'ENTRELACEMENT

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Application

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Abstract (en)

[origin: WO2013029810A1] The invention relates to a method and a device for producing intertwining knots in a multifilament thread. Here, the thread is guided in a treatment channel, in which a nozzle channel opens, in order to periodically generate an air-flow pulse with an interval time between air pressure pulses which follow one another, wherein, during a pulse time, the air-flow pulse is directed transversely onto the thread which is guided in the treatment channel. In order for it to be possible to produce the formation of the intertwining knots with as little energy expenditure of the air pressure pulses as possible, according to the invention an auxiliary air flow is generated continuously or discontinuously and is blown into the treatment channel together with the air-flow pulse. The device according to the invention produces the intertwining knots by way of a rotating nozzle ring which has, in the circumference, a circumferential guide groove and at least one nozzle channel which opens radially into the guide groove. The nozzle ring is guided on a stator which has a chamber opening and a pressure chamber. The pressure chamber is connected to a compressed air source via a compressed air connection, with the result that, if the nozzle ring is rotated, the nozzle channel can be connected periodically to the chamber opening of the pressure chamber in order to generate an air-flow pulse. A cover is provided in the region of the chamber opening of the stator so as to lie opposite the nozzle ring, which cover forms a treatment channel with the nozzle ring. In order to influence the air flow and swirling within the treatment channel, at least one auxiliary nozzle channel which opens into the treatment channel and can be connected continuously or periodically to the compressed air source is provided on the nozzle ring and/or the cover.

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