

Title (en)
MACHINE AND PROCESS FOR UNWINDING AND WINDING YARN AT A SPEED GREATER THAN 1M/S

Title (de)
MASCHINE UND VERFAHREN ZUM ABWICKELN UND AUFWICKELN VON FADEN MIT EINER GESCHWINDIGKEIT VON MEHR ALS 1 M/S

Title (fr)
MACHINE ET PROCÉDÉ DE DÉROULEMENT ET D'ENROULEMENT DE FIL À UNE VITESSE SUPÉRIEURE À 1M/S

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Abstract (en)
A machine for unwinding and winding yarn at a speed greater than 1 m/s and without twisting, comprising: a rotary means for the delivery of yarn, comprising a yarn delivery spool and a motor (M1), a rotary means for the collection of yarn, comprising a yarn collection spool, swinging means that define the geometry of the spool, and a motor (M2), where at least the yarn delivery means or the yarn collection means has a torque limiting means with a torque limitation value (Zmax) and always causing a slip velocity (Vdes), understood to be the difference in angular velocity, of the angular velocity of the shaft of the motor associated with the torque limiting means and the angular velocity of the spool associated with the torque limiting means, in such a way that it is possible to establish the tension of the yarn (Twork) measured between the swinging means and the collection spool during the transformation process, and consequently to be able to maintain said yarn tension (Twork) below a maximum tension (tmax) and above a minimum tension (tmin) by modifying the slip velocity (Vdes) alone.

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