

Title (en)  
WINDING OR UNWINDING DEVICE FOR RIBBONS WITH DIFFERENT WIDTHS

Publication  
**EP 0190095 B1 19900418 (DE)**

Application  
**EP 86730010 A 19860121**

Priority  
DE 3503325 A 19850129

Abstract (en)  
[origin: EP0190095A2] 1. Winding apparatus for winding or unwinding ribbons of different widths having a drive shaft (8) and at least one supporting shaft arranged on the drive shaft to accept a winding core (18), in which the supporting shaft has a friction disc arrangement which is clamped fixedly against the drive shaft, pressure-loaded from the side, characterised in that each friction disc (1) of the friction disc arrangement has a bush (2), fixedly connected with the drive shaft (8), on which is slidably arranged a tightening ring (3), wherein the bush is provided with a flange (11) which lies on an end face of the tension ring (3) and, leaving a small space between the tightening rings of two adjacent friction discs, on the other end face of the adjacent tightening ring, and that the tightening ring (3) has a slot (13) in its outer peripheral face in which segments (4, 5, 6) of a jockey ring (7) are received which are so guided in lengthwise-extending throughways (14) provided in the tightening ring (3) that they are by sliding in the throughways, thrown out from the peripheral surface of the tightening ring.

IPC 1-7  
**B65H 16/02**; **B65H 18/10**

IPC 8 full level  
**B65H 16/02** (2006.01); **B65H 16/10** (2006.01); **B65H 18/10** (2006.01)

CPC (source: EP)  
**B65H 16/02** (2013.01); **B65H 16/103** (2013.01); **B65H 18/10** (2013.01); **B65H 18/106** (2013.01); **B65H 2511/12** (2013.01)

Cited by  
EP1839861B2

Designated contracting state (EPC)  
AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)  
**EP 0190095 A2 19860806**; **EP 0190095 A3 19870603**; **EP 0190095 B1 19900418**; AT E52070 T1 19900515; DE 3503325 A1 19860731; DE 3503325 C2 19910207; DE 3670473 D1 19900523

DOCDB simple family (application)  
**EP 86730010 A 19860121**; AT 86730010 T 19860121; DE 3503325 A 19850129; DE 3670473 T 19860121