

Title (en)
Endless belt

Title (de)
Endloses Band

Title (fr)
Bande sans fin

Publication
EP 0960977 A2 19991201 (DE)

Application
EP 99101932 A 19990129

Priority
DE 19823948 A 19980528

Abstract (en)
The continuous belt (10), at the assembly to carry a wet pulp to be dried into a web, has one side (12) which is generally closed and one side (14) which is mainly open to give a water storage capacity of at least 5 l/m<2> and especially 5-25 l/m<2> and preferably 10-18 l/m<2>. The mean bending strength of the belt, in the peripheral and the lateral directions, has a value $\leq 10 \text{ Nm}<2>$ for a width of 1 m. The mean bending strength in the peripheral direction is equal to the mean lateral bending strength, or they may differ. The open side (14) of the belt has grooves, at least partially extending all together in the peripheral direction, together with grooves all together in the lateral direction. The grooves can also be in a spiral. At least part of the grooves have a depth of 5-25 mm and especially 12-20 mm. The open side (14) of the belt can alternatively be fitted with knobs (20), in longitudinal and lateral rows, or in a spiral. The outer surfaces (24) of the knobs (20), in contact with the fourdrinier, are $\leq 50\%$ of the total belt (10) surface, and cover especially 15-30% and preferably 20-25%. The knob contact surfaces (24) do not extend by more than 6 mm in any direction, with a maximum surface side size of about 2 mm. The knob contact surfaces (24) have a round, quadratic or rectangular shape. The projecting knobs (20) have a compressibility of 100-2000 kPa. The belt (10) has a reinforcement (26) to support the projecting knobs (20), using reinforcement filaments aligned longitudinally and laterally, embedded in a base matrix (18). The base matrix (18) is molded with surplus material, to allow the knobs (20) to be cut out. The base (18) has a thickness (hB) of 0.5-8.0 mm and preferably about 4.0 mm. The knobs (20) contain an inner gas, and preferably an air cushion, with ventilation especially to the side and/or to the inner side (12) of the belt. The knob contact surfaces (24) can also be formed by spikes, inserted into the knobs (20). The spikes are slitted at least at the contact surfaces (24).

Abstract (de)
Ein im Entwässerungsbereich und insbesondere im Formierbereich einer Maschine zur Herstellung einer Faserstoffbahn verwendbares endloses Band (10) besitzt eine geschlossene Seite (12) und eine gegenüberliegende offene Seite (14). Sein Wasserspeichervolumen beträgt wenigstens 5 l/m<2>, wobei dieses Wasserspeichervolumen insbesondere in einem Bereich von etwa 5 l/m<2> bis etwa 25 l/m<2> und vorzugsweise in einem Bereich von etwa 10 bis etwa 18 l/m<2> liegt. Seine mittlere Biegesteifigkeit in Umfangsrichtung sowie seine mittlere Biegesteifigkeit in Querrichtung bezogen auf eine Breite von 1 m besitzt jeweils einen Wert, der kleiner oder gleich 10 Nm<2> beträgt. <IMAGE>

IPC 1-7
D21F 9/00; **D21F 3/02**

IPC 8 full level
D21F 1/10 (2006.01); **D21F 3/02** (2006.01); **D21F 9/00** (2006.01)

CPC (source: EP US)
D21F 3/029 (2013.01 - EP US); **D21F 9/003** (2013.01 - EP US)

Cited by
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