

## Title (en)

Method and device for treating a strip of fibrous material in a long nip press unit

## Title (de)

Verfahren und Vorrichtung zur Behandlung einer Faserstoffbahn in einer Langnip-Pressseinheit

## Title (fr)

Procédé et dispositif de traitement d'une bande de matière fibreuse dans une unité de presse à longue ligne de contact

## Publication

**EP 2264243 A1 20101222 (DE)**

## Application

**EP 10004733 A 20100505**

## Priority

AT 7812009 A 20090519

## Abstract (en)

The press arrangement comprises transferring a fibrous material web to a long nip press unit (29) through an extended press nip (26), where the long nip press unit has a press roll (24) with a rotating press jacket (25) and a mating roll (23). The fibrous material web is transferred to a transfer element in connection to the extended press nip on the press jacket of the press roll, where the transfer element receives the fibrous material web. The rotating press jacket consists of a carrier and an elastically compressible polymer coating, which is turned to the fibrous material web. The press arrangement comprises transferring a fibrous material web to a long nip press unit (29) through an extended press nip (26), where the long nip press unit has a press roll (24) with a rotating press jacket (25) and a mating roll (23). The fibrous material web is transferred to a transfer element in connection to the extended press nip on the press jacket of the press roll, where the transfer element receives the fibrous material web. The rotating press jacket consists of a carrier and an elastically compressible polymer coating, which is turned to the fibrous material web and has a hardness of 50-97 Shore-A, where the surface of the polymer coating contacting the fibrous material web has a reversible pressure-dependent roughness (R z) of 2-80  $\mu\text{m}$  in an unloaded state measured according to ISO 4287 and has a roughness (R z) of 0-20  $\mu\text{m}$  in a loaded state with a linear load of 20-600 kN/m. The rotating press jacket is impermeable. The polymer coating contains a polymer composition, and particulate filler material, which contains kaolin-clay, polymer material or stainless steel. The polymer coating completely encloses the carrier. An independent claim is included for a method for treating a fibrous material web in a paper or cardboard machine.

## Abstract (de)

Die Erfindung betrifft ein Verfahren zur Behandlung einer Faserstoffbahn (9) in einer Papier- oder Kartonmaschine in einer Langnip-Pressseinheit (29) mit einer Presswalze (24), die einen rotierenden Pressmantel (25) aufweist und einer Gegenwalze (23), wobei die Faserstoffbahn (9) in einem verlängerten Pressspalt (26) zwischen der Gegenwalze (23) und dem Pressmantel (25) der Presswalze (24) entwässert wird. Erfindungsgemäß wird die Faserstoffbahn (9) nach dem verlängerten Pressspalt (26) auf dem rotierenden Pressmantel (25) der Presswalze (24) zu einem Transferbereich (30), in dem die Faserstoffbahn (9) vom Pressmantel (25) auf ein Transfererelement (31, 27) übergeben wird, geführt. Die Erfindung betrifft auch eine Pressanordnung mit der das erfindungsgemäße Verfahren durchgeführt wird.

## IPC 8 full level

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## CPC (source: EP US)

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## Citation (applicant)

- DE 10233920 A1 20040212 - VOITH PAPER PATENT GMBH [DE]
- EP 1075567 B1 20030806 - METSO PAPER KARLSTAD AB [SE]
- EP 1397553 B1 20070103 - VOITH PATENT GMBH [DE]
- EP 0954634 B1 20011004 - VOITH PAPER PATENT GMBH [DE]

## Citation (search report)

- [X] WO 9715718 A1 19970501 - VALMET CORP [FI]
- [I] DE 102005060379 A1 20070621 - VOITH PATENT GMBH [DE]
- [X] DE 19642046 A1 19980416 - VOITH SULZER PAPIERMASCH GMBH [DE]

## Cited by

EP3623525A1; US2010300635A1; US2012055644A1; US8349138B2; AT16404U1

## Designated contracting state (EPC)

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