

Title (en)  
Roller press

Title (de)  
Walzenpresse

Title (fr)  
Presse à rouleaux

Publication  
**EP 0745725 B1 20000726 (DE)**

Application  
**EP 96108438 A 19960528**

Priority  
DE 19520443 A 19950603

Abstract (en)

[origin: EP0745725A2] Roller press, calender etc. has three rollers min. forming pressure gaps to process fabric web (2) where one (3) has a very flexible casing rotating about a fixed carrier (4) on which it is mounted via at least one support element (6) with a concave surface (7) guaranteeing a broad pressure gap (1) with a counter cylinder (8). The latter forms another gap (15) with at least one flexurally non-controlled roller (14) and its casing's (9) outer circumference reduces axially from roller mid-point to ends. Also claimed is a like second roller press where the feature of the counter roller's casing is that it rotates about a fixed carrier (10) and, at its ends can not be moved against, but is mounted via at least one support element (11) on, the carrier. The elements act in a direction which, while being set at an insignificant angle, DELTA, out of the pressure plane formed with the first roller (3), is tilted w.r.t. the third roller forming the other pressure gap. Also claimed is third roller press similar to the last where the feature of the counter roller's support elements is that, along with the opposing main roller elements (6), they are so arranged and activated that the main roller exerts greater resultant compressive force in opposing that from the counter roller. Pref. the circumference of the main roller's casing and of the third roller reduces axially from roller mid-point to ends by pref. the same amount. All rollers circumferences taper off similarly to those of the preferred first press. Alternatively the counter roller's circumference does not alter. Angle DELTA is between 2 and 15, pref. 4 and 8 degrees and varies from roller mid-point to ends. All roller circumferences of taper off similarly to those of the preferred second press, angle DELTA has the same features and support elements are similarly tilted. Opposing support elements are singly, in groups or all together connected to a common pressurised fluid pipe. It is guaranteed that the main roller exerts greater compression in opposing counter roller force by fluid pressure reducing devices and the ratio of the areas of the opposing support elements.

IPC 1-7  
**D21F 3/02; D21G 1/00**

IPC 8 full level  
**D06C 15/02** (2006.01); **B30B 9/20** (2006.01); **D21F 3/02** (2006.01); **D21F 3/04** (2006.01); **D21G 1/00** (2006.01)

CPC (source: EP US)  
**D21F 3/0218** (2013.01 - EP US); **D21F 3/04** (2013.01 - EP US); **D21F 3/045** (2013.01 - EP US); **D21G 1/006** (2013.01 - EP US)

Citation (examination)  
PULP AND PAPER MANUFACTURE, THIRD EDITION, VOLUME 7: "Paper Machine Operations", 1991, THE JOINT TEXTBOOK COMMITTEE OF THE PAPER INDUSTRY, CANADA

Cited by  
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Designated contracting state (EPC)  
AT DE FI SE

DOCDB simple family (publication)  
**EP 0745725 A2 19961204; EP 0745725 A3 19970122; EP 0745725 B1 20000726**; AT E195009 T1 20000815; CA 2178020 A1 19961204; DE 19520443 A1 19961205; DE 19520443 C2 20000531; DE 59605635 D1 20000831; JP H0924492 A 19970128; US 5788817 A 19980804; US 5908537 A 19990601

DOCDB simple family (application)  
**EP 96108438 A 19960528**; AT 96108438 T 19960528; CA 2178020 A 19960603; DE 19520443 A 19950603; DE 59605635 T 19960528; JP 13733396 A 19960531; US 65885396 A 19960531; US 87872597 A 19970619