

Title (en)
Hydrocyclone system

Title (de)
Hydrozyklonanlage

Title (fr)
Système d' hydrocyclones

Publication
EP 1167621 A1 20020102 (DE)

Application
EP 01107322 A 20010324

Priority
DE 20010900 U 20000620

Abstract (en)
The hydrocyclone assembly has a number of hydrocyclones (1) each with at least one inlet (2) and one outlet (3) for cleaned fiber suspension and an outlet (4) for the reject fraction. At least one connection for the hydrocyclone (1) has a flange (6), secured to the distribution/collection unit (5) by screw bolts (9) mounted to the wall (7) of the unit (5). The screw bolts (9) are welded to the wall (7) of the distribution/collection unit (5). Two screw bolts (9) are fitted for each connection, at points with the min. gap to the flange (6). At least one seal is round the connection into the interior of the distribution/collection unit (5), with a thickness flanking the wall opening which gives a larger dia. than the opening through the wall (7). The outer dia. of the seal in position through the wall opening is at least 2 mm smaller than the wall opening dia. The drilling through the seal is conical, tapering in the direction of the flange (6) mounting, and the disk surfaces of the flange (6) are not in contact with the seal. At least two connections can be adjusted in relation to each other, at the hydrocyclone, and then locked in position. The center axis of the hydrocyclone (1) is at right angles or parallel to the main flow direction at the distribution/collection unit (5). The distribution/collection unit (5) has a flow section with a cylindrical side wall (7) with openings for the feed (2) and the cleaned fiber outflow (3) or the reject fraction outflow (4). It has an inner dividing wall to separate the flow cross section with the feed upstream of the wall and the outflows downstream of it. The outflow openings (3,4) are evenly distributed round the circumference of the unit. The side wall (7) has the outline of a regular polygon.

Abstract (de)
Die Hydrozyklonanlage besteht aus mehreren, in der Regel vielen Hydrozyklonen. Diese sind jeweils mit einem Zulaufanschluss (2), einem Gutstoffanschluss (3) und einem Rejektanschluss (4) an eine Verteil- und Sammelvorrichtung (5) angeschlossen. Dabei ist mindestens eine der Anschlüsse der Hydrozyklone (1) mit einem Flansch (6) versehen und an der Wandung (7) der Verteil- und Sammelvorrichtung (5) mit Hilfe von Gewindebolzen (9) angeschraubt. <IMAGE>

IPC 1-7
D21D 5/24; **B04C 5/28**

IPC 8 full level
B04C 5/28 (2006.01); **D21D 5/24** (2006.01)

CPC (source: EP US)
D21D 5/24 (2013.01 - EP US)

Citation (search report)
• [A] WO 9116988 A1 19911114 - CELLECO HEDEMORA AB [SE]
• [A] US 4146469 A 19790327 - KAISER ROBERT G, et al
• [A] DE 3150073 A1 19830623 - TRAUTWEIN BILL B [US]
• [A] US 3085382 A 19630416 - FINNEY JR JAMES A, et al
• [A] DE 29916596 U1 20000105 - VOITH SULZER PAPIERTECH PATENT [DE]

Designated contracting state (EPC)
AT DE FI FR SE

DOCDB simple family (publication)
US 2001052486 A1 20011220; **US 6508366 B2 20030121**; AT E298815 T1 20050715; BR 0101690 A 20020423; CA 2350170 A1 20011220; DE 20010900 U1 20000824; DE 50106612 D1 20050804; EP 1167621 A1 20020102; EP 1167621 B1 20050629; MX PA01006323 A 20030519

DOCDB simple family (application)
US 86325901 A 20010524; AT 01107322 T 20010324; BR 0101690 A 20010504; CA 2350170 A 20010619; DE 20010900 U 20000620; DE 50106612 T 20010324; EP 01107322 A 20010324; MX PA01006323 A 20010620