

Title (en)

Screw decanter type centrifugal concentrating machine.

Title (de)

Zentrifugalkonzentrationsmaschine vom Schneckendekantertyp.

Title (fr)

Appareil centrifuge de concentration du type décanteur à vis sans fin.

Publication

**EP 0159422 A1 19851030 (EN)**

Application

**EP 84302070 A 19840327**

Priority

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Abstract (en)

An improved screw decanter type centrifugal concentrating machine of the type including a horizontally extending bowl (1) and a screw conveyor (8) rotatably supported within the bowl (1) in the coaxial relation is disclosed. The screw conveyor (8) is rotated at a different rotational speed from that of the bowl (1) and an arrangement is made such that liquid initially supplied prior to separating, concentrated liquid and residual liquid after completion of separation are continuously supplied and discharge through the hollow space in the hollow shafts (12) (13) of the bowl (1) and the screw conveyor (8). To properly adjust discharge rate of concentrated liquid and residual liquid from the machine or concentration of solid material in both liquids, throttle valves are disposed at the position located midway of discharge passages extending from the hollow shafts (13) (28). The throttle valves (23) (26) are preferably designed in the form of an automatically controlled valve. Suspension to be treated is introduced into the bowl (1) by way of guide vanes (17) on the side wall of the bowl. After completion of separation concentrated liquid is discharged through the tubular space in the hollow shaft (28) by way of scooping tubes (18) or grooves and residual liquid is discharged through the cylindrical space (30) in the hollow shaft (13) by way of passages (20) in a guide plate (19) at the side end part of the screw conveyor (8).

IPC 1-7

**B04B 1/20**

IPC 8 full level

**B04B 1/20** (2006.01)

CPC (source: EP)

**B04B 1/20** (2013.01); **B04B 2001/2083** (2013.01)

Citation (search report)

[X] DE 3317047 A1 19840105 - LEIPZIG CHEMIEANLAGEN [DD]

Cited by

EP4272870A1; JP2018043211A; DE3638652A1; DE4231063A1; DE3608664A1; US4784634A; EP0602670A3; US5542903A; US5685819A; GB2255519A; GB2255519B; GB2233258A; GB2233258B

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