

Title (en)

Method for pumping slurry and apparatus for use therewith.

Title (de)

Verfahren und Vorrichtung zum Pumpen einer Feststoff enthaltenden Flüssigkeit.

Title (fr)

Dispositif et procédé pour le pompage des eaux brutes.

Publication

EP 0101770 A1 19840307 (EN)

Application

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Priority

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Abstract (en)

In the method of the present invention, the slurry as it flows from a source thereof is pre-rotated prior to entering a circular vertical confined space that has a cut water discharge in the upper portion thereof. The pre-rotating slurry upon entering the confined space is subjected to the rotary action of first and second laterally spaced circular surfaces that have a number of laterally spaced ring-shaped surfaces situated therebetween. The circular surfaces and ring-shaped surfaces are power driven and rotate concurrently as a unit. As such rotation takes place, the boundary layers of slurry that adhere to the circular surfaces and ring-shaped surfaces are sheared from the balance of the slurry, and the slurry in the confined space rotating as a result thereof. As a result of this rotation, the slurry in the confined space sequentially discharges through the cut water to be replaced by pre rotating slurry that enters the confined space. Tapered outer edge surfaces on the rotating surfaces direct slurry inwardly to the ring-shaped surfaces to prevent a build-up of solids in the confined space that would jam the rotation of the circular and ring-shaped surfaces. The inner peripheries of the ring-shaped surfaces define knife edges that sever particles in said slurry too large to move outwardly through the spaces between the ring-shaped surfaces into portions that can pass through such spaces.

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F04D 5/001 (2013.01); **F04D 7/045** (2013.01); **F04D 29/2288** (2013.01)

Citation (search report)

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