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(54) TWO STAGE LIQUID RING MACHINE

(57) Abstract:

FIELD: liquid ring machine.

SUBSTANCE: machine contains housings 1 and 2 of the first and second stages, connected by branch pipe 3, in which wheels 4 and 5 are installed with eccentricity. Shaft 7 of the first stage passes through hollow shaft 8 of the second stage and is connected to it by means of a double-disk frontal variator with intermediate roller 11 and chain drive 12. Branch pipe 3 is equipped with tee 13, in which electromagnetic damper 14 is located. Gear 12 additionally has an electromagnetic clutch 15. Clutch 15 and damper 14 are controlled by pneumoelectric sensor 16. Housing 1 with blades 6 is mounted with the possibility of rotation by wheel 4. The discharge window of the second stage is equipped with a mechanism for regulating the size of the passage section. In the suction area of both the stages, fittings for additionally supplied working fluid are installed. Supply of the additional working fluid is distributed between the steps proportionally depending on the operating mode and through fittings located at the ends of intermediate chamber 29.

EFFECT: reduced energy consumption and consumption of additional working fluid while increasing efficiency.

5 cl, 7 dwg

RU 2805028 C1

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