

Title (en)
CHOPPER FOR A PARTICLE BEAM

Title (de)
CHOPPER FÜR EINEN TEILCHENSTRAHL

Title (fr)
HACHEUR POUR UN FAISCEAU DE PARTICULES

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Abstract (en)
[origin: WO2009039832A1] The invention relates to a chopper for a particle beam, comprising an annular guiding element (11) and a control element (13) for the intensity of the particle beam. According to the invention, the control element is mounted up against the guiding element in such a way that at least one contact point on the control element can run around the circumference of the guiding element. Mounting along a circumference makes it possible with the same bearing force to compensate for much greater disturbing torques than mounting at the axis of rotation. It also makes it possible to dispense entirely with the axis of rotation, and so the control element can for example be formed as a ring. In comparison with prior-art chopper wheels, this brings about a considerable weight saving, which results in greater circumferential speeds being possible, and consequently greater modulation frequencies for the particle beam being possible, with at the same time increased operational reliability.

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