

ON THE LIMITING FACTORS DEFINING TOLERANCES IN THE  
IRON STRUCTURE OF THE CYCLOTRON

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The appropriate phase of the accelerated particle in relation to the RF phase is strongly dependant on the possibilities of correction of errors of magnetic field due to machining of iron structure of the cyclotron.

The tolerances in machining of iron surfaces closest to the median plane depend on the magnetic induction value in the operating range of the machine, the pole radius of the magnet, correction coil power consumption, and the range of specific charge  $\frac{Z}{A}$  of particles which are to be accelerated in the cyclotron magnet. We discuss the results of an analysis of the isochronous cyclotrons of the CGR type.