

The extraction system adaptation for MSC230 cyclotron final engineering design.

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JINR is developing novate cyclotron for proton therapy (including FLASH) for new JINR's international biomedical research center. The project is about to be put into manufacturing stage. As unavoidable parts of this process, engineering, mechanical and production limitations impose correction on the physical conceptual design of the cyclotron. Therefore, the initial extraction system should be adjusted accordingly to the new model and improved as possible for upcoming manufacturing stage.

MSC230 extraction system is electrostatic deflector followed by two magnetic channels with their compensators. The extraction system adaptation - the procedures, the results, the improvements, the created codes and methods –are described in this talk.

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