

Invention relates to devices for creation of high, mainly superhigh pressure in a container that has plane of symmetry and axis of symmetry, and may be used, in particular, for manufacture of superhard materials: artificial diamond, boron nitride, etc. The device contains a container, the punches being symmetrically located about axis together with common drive for radial compression of the container, and elements for fixation of container in axial direction that serve as guides for mentioned punches and prevent off extrusion of container material into the gap between them and punches. The distinctive feature of the device consists in that one of elements for container fixation in axial direction has a drive for axial movement, punches being assembled in two identical in number groups, punches of each group are located on one of above-mentioned elements symmetrically about said plane and are equipped with swinging mechanism, and their drive is made as a hydraulic drive and a block rigidly connected with its moving element and consisting of several connected with tension coaxially located rings, on inside surface of the smallest ring wedges corresponding to the number of punches are mounted thus forming with latter wedge pairs, all contact areas of punches between them are insulated.