

Device for creation of high pressure during manufacture of superhard materials contains a container having an axis of symmetry, punches for compression of container in radial direction, one of which is mounted on the frame and other has a drive, and a stencil symmetric about container axis. In order that elements of assembled stencil work only in compression within limits of elastic deformation, the container is made in a form of a regular prism, and the stencil is made as separate elements symmetric about the mentioned axis. Each element consists of two parts that are electrically insulated and fastened to each other. The elements that are connected to the frame with the possibility of radial transmission are fit with the indexing mechanism and have a common drive. The drive is made as a hydraulic drive and a block rigidly connected with its moving element and consisting of several coaxially located rings connected with tension. On inside surface of the smallest ring wedges corresponding to the number of punches are mounted thus forming with latter wedge pairs.