

Hydraulic-pulse vibro-impact device for surface strain hardening of machine parts with separate sealing elements for sealing surfaces comprises a square-section housing with a mounting foot for securing it in a standardized tool holder of machine unit, pressure, intermediate, and drain cavities, and a cup against which the impact piston rests, the end face of which forms the first sealing surface. The adjustment screw, secured with a locknut, is mounted so that it can make contact with the support pusher via a ball. The tool is mounted on a tool holder, and the inlet and outlet fittings for the fluid from the hydraulic tank are attached. There is a groove in the housing into which the sleeve is inserted. The striking piston is mounted in a seat that rests against the bottom of the housing bore via a coil spring; the striking piston acts as a valve and serves as the sealing element for the first sealing area, with its spring-loaded portion resting on a support pusher. The ball rests against the second end of the shaft, which is rolled with its opposite hemisphere into a locknut on the adjusting screw, which is screwed into a threaded hole in the cup, secured by a locknut and fastened in a threaded hole in the cover, which is secured to the housing with screws and it secures the sleeve with its inner end. The sleeve features a central sealing chamfer designed to make contact with a second sealing surface, which is the end face of the valve-slot spring; the other end of the spring rests against the end face of the cup, which is mounted in the cover and secured with a locknut.