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The invention relates to processes for manufacturing microstructures of metallic and nonmetallic materials by explosion.
The process for manufacturing microstructures by explosion is realized in the following way: onto a support (1) there is installed a set of sheets (2) and (3) (metallic or nonmetallic), between which there are placed microgroove forming elements (4), and onto the surface of the sheet (2) there is installed an explosive material (5), that is blasted by means of a detonator (6). As a result of explosion there takes place pressing of the sheets (2) and (3) (in milliseconds) and incorporation into the sheets (2) and (3) of the microgroove forming elements (4), as a result of which onto the surface of the sheets are formed microgrooves and it is realized welding of the sheets, then the microgroove forming elements (4) are removed.

Claims: 3
Fig.: 7