



“Gheorghe Asachi” Technical University of Iasi, Romania



PROCEDURE FOR METAL CUTTING USING EXPLOSIVES, WITH LOW ENVIRONMENTAL IMPACT

Ilie Ciprian Jitea*, Constantin Lupu, Marius Șuvar, Dana Rus

*National Institute for Research and Development in Mine Safety and Protection to Explosion–INSEMEX Petroșani,
32-34 G-ral Vasile Milea Str., 332047, Petroșani, Hunedoara County, Romania*

Abstract

Researches aim to develop new knowledge in the metal cutting field, using a relatively new technique with a low number of applications nationwide, namely the flexible explosive charge with cumulative effect for fast and precise cutting of metals. The procedure of cutting with explosives is a process that involves using and handling materials in their solid phase. This procedure is especially applied in cases where materials are mostly metals and it uses a directed and controlled cumulative explosive effect. Thereby, developing a safe and complex method of cutting and starting to use technologies that are innovative, clean and ecological, there will be advantages, both technical (different applications on materials with different shapes, sizes, structures, stresses), economic (productivity, reductions of consumption, materials and costs) and environmental (reducing emission of greenhouse gases generated from the current cutting technologies).

Key words: cutting procedure, environment, explosion, explosive materials

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* Author to whom all correspondence should be addressed: E-mail: ciprian.jitea@insemex.ro; Phone: + 40 254541561; Fax: + 40 254541561