

# THE THEORETYCAL CONTRIBUTION MODELLING GASOLINE INJECTION AT ENGINES WITH SPARK LIGHTING

BLAGA, V.; BELES, H.; DRAGOMIR, G.;  
VLAD, I.; VLAD, M. & TIMAR, A.

**Abstract:** *Abstract: the authors present the general aspects of theoretical modeling of gasoline injection, the principle modeling of some of the elements of gasoline injection, namely the gasoline pump model and the pressure regulator model. It is presented the general model of a spark engine with gasoline injection. The modeling of the motor cycles with spark engines and gasoline injection suggested by the authors is realized by executing a computer program for determining the variation of the three-dimensional and bi-dimensional parameters with the sub-programs: program for calculating the SIE (dependence according to  $n$  and  $\lambda$  at  $t_0 = -35 \dots +45^\circ\text{C}$  and  $p_0 = 1 \cdot 10^2 \text{ kPa}$ ); program for calculating the SIE (dependence according to  $n$  and  $t_0$  at  $\lambda = 1$  and  $p_0 = 1 \cdot 10^2 \text{ kPa}$ ); program for calculating the SIE cycle with gasoline injection. It was realized a study for calculating the pressure from the admission gallery  $p_g$  and the admission pressure  $p_a$ .*

**Key words:** *pressure regulator, valve, pulverization, duration of injection*



**Authors' data:** Dr., Prof. **Blaga**, V[asile]\*; Dr. **Beles**, H[oria]\*\*; Dr. **Dragomir**, G[eorge]\*\*\*; Prof. **Vlad**, I[oa]n\*\*\*\*; Asoc. Prof. **Vlad**, M[ariana]\*\*\*\*\*; Dr. **Timar**, A[drian]\*\*\*\*\*, \*University of Oradea, Bumbacului street, nr.16, 3700, Oradea, RO, \*\*University of Oradea, 47, Fabricii Street, 060821, Bucharest, RO, \*\*\*Universiy of Oradea, Blv Dacia nr 26 bloc D59 ap. 6, 410346, Oradea, RO, \*\*\*\*University of Oradea, Romania, Bihor county, Oradea city, Dacia street, nr. 26, bloc D59,ap. 23, 410464, Oradea, RO, \*\*\*\*\*University of Oradea, Romania, Bihor county, Oradea city, Grigore Ureche street, 410485, Oradea,RO, atimar@uoradea.ro, georgedragomir@yahoo.com, horia.beles@gmail.com, ioanvlad2006@yahoo.com, mariana\_popvlad@yahoo.com, vblaga\_univ\_oradea@yahoo.com

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