

## **DETERMINATION OF THE REGRESSION RELATION OF THE CUTTING MOMENTS FOR WIDENING OF THE STAINLESS STEEL 4NiCr180**

**Aurelian Vlase<sup>1</sup>, Ovidiu Blăjină<sup>1</sup> & Maturin Sime<sup>1</sup>**

<sup>1</sup> University POLITEHNICA of Bucharest-Romania, Production Engineering Department

Corresponding author: Ovidiu Blăjină, ovidiu\_blajina@yahoo.com

*Abstract:* This paper presents a series of experimentally establish data regarding the widening of the stainless steel 4NiCr180 and the ways and means to fix on the cutting moments with respect to the specific working conditions. The experimental data and their following processing represent the original contribution of the authors to determine the relation of the cutting moment's equation for widening of the used steel. This was modified with respect to the relations of cutting moments available in the literature for common steels.

The obtained results can be used in production activity, in order to increase the productivity of the stainless steel machining.

*Key words:* widening, cutting moments, stainless steel, polytropic exponents.