

Advanced Cutting Technology in Process Chains for High Strength Steels

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Abstract. The application of high-tensile sheet metal materials in car body construction requires the development of *new production strategies* for preparing sheet metal part edges where laser welding operations have to be performed. Using up this sheet materials in cutting processes for car bodies lead to higher stressing of active tool parts. To arrive the same tool life quantities as is presently the standard in the production process using conventional materials it is necessary to modify the tool *designs for cutting tools*, to *determine well adapted tool materials and coatings*, to choose modified lubricants and to optimize the surface quality of tools for cutting operations.