

## **Equal Channel Angular Pressing (ECAP) as an Alternative for Manufacturing Light Weight High Strength Materials**

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**Abstract:** Nanostructured materials produced by severe plastic deformation (SPD) are 100% dense, contamination-free, and sufficiently large for use in real commercial structural applications. These materials are found to have high strength, good ductility, under certain conditions superplasticity, a low friction coefficient, high wear resistance, enhanced high cycle fatigue life, and good corrosion resistance. [1] Equal Channel Angular Pressing (ECAP) it is a technique of SPD, offers process material in large volumes without changing in cross section. In this paper reviewing the state of the art of equal channel angular pressing and present the design of an ECAP developed by the University and the results obtained of processed aluminums 5083 and 6060.

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