

The Design of an Incremental Sheet Forming Machine

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Abstract. A new incremental sheet forming machine has been built in Cambridge and was commissioned in October 2004. The basis for the machine design is described, including estimates of tool forces, the need for access to the reverse side of the workpiece, and the need to cope with high horizontal loads at the tool tip. The tool-mounting has been designed to rotate freely but passively, and to allow for simple exchange of tool tips. The workpiece is mounted on a set of load cells providing a six degree of freedom constraint without moment loading of the cells. The initial operation of the machine is briefly described.