A Structured Review and Classification of Demolding Issues and Proven Solutions

The demolding of replicated parts can result in damage to both the replication tooling and finished parts and is a particular problem for the replication of smaller parts which can be quite fragile. Various techniques have been proposed in the literature to solve such problems by reducing the overall demolding force. This paper presents the challenge of demolding replicated parts and reviews the proven solutions from the literature which have been developed. A summary chart of these solutions is presented which may be used to implement plans to solve demolding problems with replicated parts. Such a rationalization of existing knowledge will enable replication tool developers to systematically select and apply proven solutions to solve, and ultimately prevent, demolding problems.

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