

Plastic Injection Molding

...material selection
and product design
fundamentals

By Douglas M. Bryce

Volume II: *Fundamentals of
Injection Molding* series



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Preface

This is the second volume in the Society of Manufacturing Engineers' *Fundamentals of Injection Molding* series intended for those requiring an awareness of the basics before being exposed to the trials and tribulations that accompany typical seat-of-the-pants accumulation of knowledge. It is also intended as a refresher (and maybe a source of new data) for those who have been in the business for awhile but wish to stay on top of things. Although the majority of information herein addresses the material selection and product design phases of the thermo-plastic injection molding process, some material from Volume 1 is included to provide the continuity necessary to adequately describe the two phases within the context of the injection molding process as a whole. The two phases are addressed in the same book because it is impractical to have one without the other. A good design requires the selection of the proper material.

My decision to publish a source of basic, fundamental information on injection molding was based on my belief that those who are interested in getting an initial grasp of the subject and also wish to have a reference tool of charts, diagrams, and data that can be used for years to come, need an easily understood source for this information. I believe this goal is accomplished in the publication of this series. But it could not have been done without the cooperation and involvement of many people. I wish to take this opportunity to thank the following for their contributions to the achievement of this goal.

- *Society of Manufacturing Engineers*, especially Don Peterson, for having the patience and fortitude to persevere through the publishing process.
- *AEC, Incorporated*, for the use of photographs and information concerning various pieces of equipment manufactured by them.
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- *Van Dorn and Cincinnati-Milacron*, for use of photographs of various equipment they manufacture.

Please accept this book as it is intended. I hope your experiences will reward you with much success and few failures. Welcome to the world of plastics.

I would like to dedicate this book to the memory of my mother, who passed away suddenly during its preparation stages. She was a positive influence in my life and I (along with everyone else who knew her) will miss her very much.

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Georgetown, Texas 1997

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