

# Injection Molding: Global Markets and Technologies Through 2023

<https://marketpublishers.com/r/I923C152219EN.html>

Date: July 2018

Pages: 231

Price: US\$ 1,375.00 (Single User License)

ID: I923C152219EN

## Abstracts

### REPORT SCOPE

The scope of this market study includes the leading plastics injection molding technologies that are currently in use globally. These technologies are used for several applications, such as medical devices, consumer packaging, telecommunications, automotive industry and in various other sectors, as well as in new emerging sectors driven by technological innovation. Technological issues, including the latest trends, are assessed and discussed, as are the current and likely regulatory environments in support of this industry.

The market analysis provided in this report is based on a variety of data sources. These include the most recent government, industry, company and academic data regarding the projected level of demand for plastics injection molding technologies. Therefore, this report provides a comprehensive review of available data to provide a realistic, robust and accurate assessment of this rapidly evolving market.

BCC Research analyzes each of the leading plastics injection molding technologies, determines their current market status, examines their potential demand and impact on future markets, and presents forecasts of growth over the next five years. Estimated market values used are based on manufacturers' total revenues. Projected and forecasted revenue values are in constant U.S. dollars, unadjusted for inflation.

BCC Research analyzes the industry on a global basis in terms of its manufacturing and the deployment of its technologies and products. BCC Research examines government roles in support of plastics injection molding technologies globally, including regulatory support, government requirements and promotional incentives for various plastics

injection molding technologies as relevant and available. BCC Research provides a review of the most relevant plastics injection molding technologies, discusses recent trends and sales, and provides industry overviews and market assessments for leading plastics injection molding technology.

## **REPORT INCLUDES**

26 data tables and 16 additional tables

An overview of the global markets for plastic injection molding technologies

Analyses of global market trends, with data from 2017, estimates for 2018, and projections of compound annual growth rates (CAGRs) through 2023

Identification of trends that will affect growth in the plastic injection molding market

Examination of governments' roles in support of plastic injection molding technologies worldwide, including regulatory support and government requirements

Information on industry regulations and standards, the competitive landscape, and industry structure

Company profiles of major players in the market, including Absolute Haitian Corp., Basf Se, Dow Chemicals Co. Ltd., Dupont, Exxonmobil Corp., and Stack Plastics Inc.

## Contents

### **CHAPTER 1 INTRODUCTION**

Study Goals and Objectives  
Reasons for Doing This Study  
Scope of Report  
Information Sources  
Methodology  
Geographic Breakdown  
Analyst's Credentials  
Related BCC Research Reports

### **CHAPTER 2 SUMMARY AND HIGHLIGHTS**

### **CHAPTER 3 MARKET AND TECHNOLOGY BACKGROUND**

History of Plastics Injection Molding  
Definition of Plastics Injection Molding  
Plastic Molding Techniques  
Plastics Molding Processes  
Blow Molding  
Compression Molding  
Film Insert Molding  
Gas Assist Molding  
Reactive Injection Molding (RIM)  
Two Shot Injection Molding  
Micro Injection Molding  
Rotational Molding  
Structural Foam Molding  
Thermoforming  
Injection Molding Versus Other Plastics Molding Processes  
Thermoplastic Polymers Used in Plastics Injection Molding  
Polyethylene (PE)  
Polypropylene (PP)  
Polyvinyl Chloride (PVC)  
Nylons  
Acrylonitrile Butadiene Styrene (ABS)  
Polystyrene (PS)

Other Injection Molding Thermoplastic Polymers Used

The Plastics Injection Molding Process

The Injection Molding Cycle

The Mold

Runner System

Preparing the Mold

Process Variations

Injection Molding Considerations

Wall Section Considerations

## **CHAPTER 4 PLASTICS INJECTION MOLDING MACHINERY AND SYSTEMS**

Injection Molding Machinery

Hydraulic Injection Molding Machines

Electric Injection Molding Machines

Hybrid Injection Molding Machines

Injection Machine Type by Arrangement

Horizontal Injection Molding Machines

Vertical Injection Molding Machines

Hybrid Injection Molding Machine

Two-Color Injection Molding Machines

Multi-material Injection Molding Machines

Rotary Injection Molding Machines

Low Foam Injection Molding Machines

Sandwich Injection Machines

Gas-assisted Injection Molding Machines

Water Injection Technology/Water-assisted Injection Molding Machines

Micro-injection Molding Machines

## **CHAPTER 5 MARKET BREAKDOWN BY POLYMER TYPE**

Polypropylene Plastics Injection Molding Market Forecast

ABS Plastics Injection Molding Market Forecast

Polystyrene Plastics Injection Molding Market Forecast

HDPE Plastics Injection Molding Market Forecast

Other Plastics Used in Injection Molding Market Forecast

## **CHAPTER 6 MARKET BREAKDOWN BY END USE**

Market for Plastics Injection Molding in Packaging and Product Housing

Power Tool Housing

Electrical Switches

Bottle Lids/Closures

Plastic Bins and Crates

Reusable Containers

White Goods Housing and Packaging

Market for Plastics Injection Molding in Medical Devices and Pharmaceutical Applications

Market for Plastics Injection Molding in Automotive Applications

Market for Plastics Injection Molding in Telecommunications Applications

Market for Plastics Injection Molding in Industrial and Business Machine Applications

Market for Plastics Injection Molding in Agricultural Applications

Market for Plastics Injection Molding in Infrastructure Applications

Market for Other Types of Plastics Used in Injection Molding

## **CHAPTER 7 MARKET BREAKDOWN BY REGION**

Asia-Pacific Market for Plastics Injection Molding

North American Plastics Injection Molding Market

European Plastics Injection Molding Market

Latin American Plastics Injection Molding Market

Middle Eastern and African Plastics Injection Molding Market

## **CHAPTER 8 PATENT REVIEW/ NEW DEVELOPMENTS**

Trends Over Time

Selected Plastics Injection Molding Patents

Chinese Patents

U.S. Patents

## **CHAPTER 9 ANALYSIS OF MARKET OPPORTUNITIES**

Emerging Trends in Plastics Injection Molding

Plastics Injection Molding Process Trends

End-use Innovations

Materials

Prototyping

## CHAPTER 10 COMPANY PROFILES

### Leading Plastics Injection Molding Machine Manufacturers

ABSOLUTE HAITIAN CORP.  
BAY PLASTICS MACHINERY  
DAVIS-STANDARD LLC  
DRI-AIR INDUSTRIES INC.  
ENGEL AUSTRIA GMBH  
GAMMAFLUX CONTROLS INC.  
GRAHAM ENGINEERING CORP.  
HUSKY INJECTION MOLDING SYSTEMS LTD.  
INDUSTRIAL HEATER CORP.  
KAUTEX MACHINES INC.  
MAGUIRE PRODUCTS INC.  
MARUKA U.S.A. INC.  
MASTER MOLDED PRODUCTS CORP.  
MILACRON LLC  
NEGRI BOSSI NORTH AMERICA  
NISSEI PLASTIC INDUSTRIAL CO. LTD.  
NORDSON POLYMER PROCESSING SYSTEMS  
NOVATEC, INC.  
PARKINSON TECHNOLOGIES INC.  
SUMITOMO (SHI) DEMAG  
UBE MACHINERY INC.  
UNIVERSAL DYNAMICS INC.  
WITTMANN BATTENFELD INC.  
YUDO CO. LTD.  
YUSHIN AMERICA INC.

### Leading Plastics Injection Molding Polymer and End-user Goods Manufacturers

APTARGROUP INC.  
BASF SE  
BECTON DICKINSON AND CO.  
BERRY GLOBAL GROUP INC.  
C&J INDUSTRIES  
DENROY PLASTICS LTD.  
DOW CHEMICALS CO. LTD.  
DUPONT  
EASTMAN CHEMICAL CO.  
EXXONMOBIL CORP.

HTI PLASTICS  
HUNTSMAN CORP.  
INEOS GROUP  
LACKS ENTERPRISES INC.  
LYONDELLBASELL INDUSTRIES NV  
MAGNA INTERNATIONAL INC.  
MSI MOLD BUILDERS  
NEWELL RUBBERMAID  
NYPRO INC.  
RUTLAND PLASTICS  
SABIC  
STACK PLASTICS INC.  
ZEIGER INDUSTRIES

## **CHAPTER 11 APPENDIX A: ACRONYMS AND ABBREVIATIONS**

## **CHAPTER 12 APPENDIX B**

## **CHAPTER 13 BIBLIOGRAPHY**

## List Of Tables

### LIST OF TABLES

Summary Table: Global Market for Plastics Injection Molding, by Thermoplastic Polymer Type, Through 2023

Table 1: Injection Molding vs. Other Plastics Molding Processes

Table 2: Classification of Plastic Products, by Type of Process

Table 3: Advantages of Thermoplastic Versus Thermoset Processes

Table 4: Properties of Low Density Polyethylene

Table 5: Properties of High Density Polyethylene

Table 6: Properties of Polypropylene

Table 7: Properties of Polyvinyl Chloride

Table 8: Properties of Nylon

Table 9: Properties of Acrylonitrile Butadiene Styrene

Table 10: Properties of Polystyrene

Table 11: Process Variables to Consider

Table 12: Summary of Common Injection Molding Defects

Table 13: Pros and Cons of Types of Injection Molder Machines

Table 14: Benefits of Internal Gas Injection Molding

Table 15: Cold Runner Injection Molding Considerations

Table 16: Hot Runner Injection Molding Considerations

Table 17: Global Market for Plastics Injection Molding, by Polymer Type, Through 2023

Table 18: Global Market Shares of Plastics Injection Molding, by Thermoplastic Polymer Type, 2018

Table 19: Selected Plastic Resin Prices, January 2018

Table 20: Global Market for Polypropylene Plastics Injection Molding, Through 2023

Table 21: Global Market for Acrylonitrile Butadiene Styrene Plastics Injection Molding, Through 2023

Table 22: Global Market for Polystyrene Plastics Injection Molding, Through 2023

Table 23: Global Market for High-density Polyethylene Plastics Injection Molding, Through 2023

Table 24: Global Market for Other Plastics Used in Injection Molding, Through 2023

Table 25: Global Market for Plastics Injection Molding, by End Use, Through 2023

Table 26: Global Market Shares of Plastics Injection Molding, by End Use, 2018

Table 27: Global Market for Plastics Injection Molding in Packaging and Product Housing Applications, Through 2023

Table 28: Global Market for Plastics Injection Molding in Medical Devices and Pharmaceutical Applications, Through 2023



Table 29: Global Market for Plastics Injection Molding in Automotive Applications, Through 2023

Table 30: Global Market for Plastics Injection Molding in Telecommunications Applications, Through 2023

Table 31: Global Market for Plastics Injection Molding in Industrial and Business Machine Applications, Through 2023

Table 32: Global Market for Plastics Injection Molding in Agricultural Applications, Through 2023

Table 33: Global Market for Plastics Injection Molding in Infrastructure Applications, Through 2023

Table 34: Global Market for Other Types of Plastics Used in Injection Molding, Through 2023

Table 35: Global Market for Plastics Injection Molding, by Region, Through 2023

Table 36: Global Market Shares of Plastics Injection Molding, by Region, 2018

Table 37: Asia-Pacific Market for Plastics Injection Molding, Through 2023

Table 38: North American Market for Plastics Injection Molding, Through 2023

Table 39: European Market for Plastics Injection Molding, Through 2023

Table 40: Latin American Market for Plastics Injection Molding, Through 2023

Table 41: Middle Eastern and African Market for Plastics Injection Molding, Through 2023

Table 42: Organizations Associated with the Plastics Injection Molding Industry

## List Of Figures

### LIST OF FIGURES

Summary Figure: Global Market for Plastics Injection Molding, by Thermoplastic Polymer Type, 2017-2023

Figure 1: Blow Molding Industrial Process Cycle

Figure 2: Compression Molding Process Cycle

Figure 3: Injection Compression Molding

Figure 4: Injection Compression Molding Process Cycle

Figure 5: Film Insert Molding Process Cycle

Figure 6: Gas Assist Molding Process Cycle

Figure 7: External Gas Assist Injection Molding Process Cycle

Figure 8: Reactive Injection Molding Process Cycle

Figure 9: Reactive Injection Molding Process Cycle

Figure 10: Rotational Molding Process Cycle

Figure 11: Multi-nozzle Low-pressure Structural Foam Plastic Molding Process Cycle

Figure 12: Plastic Thermoforming Process Cycle

Figure 13: Plastic Vacuum Thermoforming Process Cycle

Figure 14: Plastic Pressure Thermoforming Process Cycle

Figure 15: Plastic Mechanical Thermoforming Process Cycle

Figure 16: Thermoplastic injection Molding Process

Figure 17: Polyethylene Chemical Composition

Figure 18: Polypropylene Chemical Composition

Figure 19: Polyvinyl Chloride Chemical Composition

Figure 20: Nylon Chemical Composition

Figure 21: Acrylonitrile Butadiene Styrene Chemical Composition

Figure 22: Polystyrene Chemical Composition

Figure 23: Thermoplastics Injection Molding Process

Figure 24: Line Diagram of Mold

Figure 25: Injection Molding Cycle Time

Figure 26: Pressure Change in Molding Cycle

Figure 27: Injection Molding Cycle Operation

Figure 28: Example of Injection Molded Parts

Figure 29: Two-Plate Mold

Figure 30: Three-plate Mold

Figure 31: Injection Molding: A Part with Side Action Using a Core

Figure 32: Simple Mold Part

Figure 33: Comparison of Breaking Stress Under Bending Moments on Bars of Different

## Cross-Section Geometry

Figure 34: Warping Defect

Figure 35: Burn Marks Defect

Figure 36: Burn Marks Defect

Figure 37: Flash Defect

Figure 38: Flow Line Defect

Figure 39: Jetting Defect

Figure 40: Short Shot Defect

Figure 41: Sink Marks Defect

Figure 42: Cracking Defect

Figure 43: Surface Delamination Defect

Figure 44: Vacuum Voids Defect

Figure 45: Bubbles Defect

Figure 46: Blisters Defect

Figure 47: Weld Lines Defect

Figure 48: Injection Molding Machine

Figure 49: Two-Color Injection Mold Product

Figure 50: Two-Color Injection Molding Process

Figure 51: Two-Color Injection Molding Machine

Figure 52: Sandwich Injection Molding Process Cycle

Figure 53: Overmolding Process Cycle

Figure 54: Global Market for Plastics Injection Molding, by Thermoplastic Polymer Type, 2017-2023

Figure 55: Global Market Shares of Plastics Injection Molding, by Thermoplastic Polymer Type, 2018

Figure 56: Global Market for Polypropylene Plastics Injection Molding, 2017-2023

Figure 57: Global Company Market Shares of Polypropylene Production, 2018

Figure 58: Global Market for by Acrylonitrile Butadiene Styrene Plastics Injection Molding, 2017-2023

Figure 59: Global Company Market Shares of Polypropylene Production, 2017

Figure 60: Global Market for Polystyrene Plastics Injection Molding, 2017-2023

Figure 61: Global Market for High-density Polyethylene Plastics Injection Molding, 2017-2023

Figure 62: Global Market for Other Plastics Used in Injection Molding, 2017-2023

Figure 63: Global Market for Plastics Injection Molding, by End Use, 2017-2023

Figure 64: Global Market Shares of Plastics Injection Molding, by End Use, 2018

Figure 65: Global Market for Plastics Injection Molding in Packaging and Product Housing Applications, 2017-2023

Figure 66: Global Market for Plastics Injection Molding in Medical Devices and

Pharmaceutical Applications, 2017-2023

Figure 67: Global Market for Plastics Injection Molding in Automotive Applications, 2017-2023

Figure 68: Global Market for Plastics Injection Molding in Telecommunications Applications, 2017-2023

Figure 69: Global Market for Plastics Injection Molding in Industrial and Business Machine Applications, 2017-2023

Figure 70: Global Market for Plastics Injection Molding in Agricultural Applications, 2017-2023

Figure 71: Global Market for Plastics Injection Molding in Infrastructure Applications, 2017-2023

Figure 72: Global Market for Other Types of Plastics Used in Injection Molding, 2017-2023

Figure 73: Global Market for Plastics Injection Molding, by Region, 2017-2023

Figure 74: Global Market Shares of Plastics Injection Molding, by Region, 2018

Figure 75: Asia-Pacific Market for Plastics Injection Molding, 2017-2023

Figure 76: North American Market for Plastics Injection Molding, 2017-2023

Figure 77: European Market for Plastics Injection Molding, 2017-2023

Figure 78: Latin American Market for Plastics Injection Molding, 2017-2023

Figure 79: Middle Eastern and African Market for Plastics Injection Molding, 2017-2023

Figure 80: Countries with Plastic Bag Bans

## **COMPANIES MENTIONED**

ABSOLUTE HAITIAN CORP.

APTARGROUP INC.

BASF SE

BAY PLASTICS MACHINERY

BECTON DICKINSON AND CO.

BERRY GLOBAL GROUP INC.

C&J INDUSTRIES

DAVIS-STANDARD LLC

DENROY PLASTICS LTD.

DOW CHEMICALS CO. LTD.

DRI-AIR INDUSTRIES INC.

DUPONT

EASTMAN CHEMICAL CO.

ENGEL AUSTRIA GMBH

EXXONMOBIL CORP.

GAMMAFLUX CONTROLS INC.  
GRAHAM ENGINEERING CORP.  
HTI PLASTICS  
HUNTSMAN CORP.  
HUSKY INJECTION MOLDING SYSTEMS LTD.  
INDUSTRIAL HEATER CORP.  
INEOS GROUP  
KAUTEX MACHINES INC.  
LACKS ENTERPRISES INC.  
LYONDELLBASELL INDUSTRIES NV  
MAGNA INTERNATIONAL INC.  
MAGUIRE PRODUCTS INC.  
MARUKA U.S.A. INC.  
MASTER MOLDED PRODUCTS CORP.  
MILACRON LLC  
MSI MOLD BUILDERS  
NEGRI BOSSI NORTH AMERICA  
NEWELL RUBBERMAID  
NISSEI PLASTIC INDUSTRIAL CO. LTD.  
NORDSON POLYMER PROCESSING SYSTEMS  
NOVATEC, INC.  
NYPRO INC.  
PARKINSON TECHNOLOGIES INC.  
RUTLAND PLASTICS  
SABIC  
STACK PLASTICS INC.  
SUMITOMO (SHI) DEMAG  
UBE MACHINERY INC.  
UNIVERSAL DYNAMICS INC.  
WITTMANN BATTENFELD INC.  
YUDO CO. LTD.  
YUSHIN AMERICA INC.  
ZEIGER INDUSTRIES

## I would like to order

Product name: Injection Molding: Global Markets and Technologies Through 2023

Product link: <https://marketpublishers.com/r/I923C152219EN.html>

Price: US\$ 1,375.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/I923C152219EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970