OP \$840.00 280281

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 ETAS ID: TM320453

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|---------------------------------|
| NATURE OF CONVEYANCE: | Supplemental Security Agreement |

CONVEYING PARTY DATA

| Name | Formerly | Execution Date | Entity Type |
|-----------------------------|----------|----------------|----------------------|
| Mold-Masters (2007) Limited | | 10/17/2014 | CORPORATION: ONTARIO |

RECEIVING PARTY DATA

| Name: | Bank of America, N.A., as collateral agent | |
|-----------------|--|--|
| Street Address: | 20975 Swenson Drive, Suite 200 | |
| City: | Waukesha | |
| State/Country: | WISCONSIN | |
| Postal Code: | 53186 | |
| Entity Type: | Association: UNITED STATES | |

PROPERTY NUMBERS Total: 33

| PROPERTY NUMBERS | | Movel Moule |
|----------------------|---------|----------------------|
| Property Type | Number | Word Mark |
| Registration Number: | 2802817 | MERLIN |
| Registration Number: | 1918627 | MOLD-MASTERS ACADEMY |
| Registration Number: | 1186387 | MASTER-SHOT |
| Registration Number: | 1933748 | DURA CENTI-SHOT |
| Registration Number: | 1447183 | SCAN-MASTER |
| Registration Number: | 1984430 | DURA HECTO-SHOT |
| Registration Number: | 2042134 | DURA |
| Registration Number: | 1142933 | HOT EDGE |
| Registration Number: | 1932033 | DURA DECI-SHOT |
| Registration Number: | 2177077 | DURA FEMTO-SHOT |
| Registration Number: | 2019486 | DURA MEGA-SHOT |
| Registration Number: | 1932032 | DURA PICO-SHOT |
| Registration Number: | 1282175 | MASTER-PROBE |
| Registration Number: | 2389509 | MERLIN |
| Registration Number: | 1020951 | MOLD-MASTERS |
| Registration Number: | 1072894 | MOLD-MASTERS SYSTEM |
| Registration Number: | 2940466 | MASTER-SERIES |
| Registration Number: | 2911838 | |
| Registration Number: | 2911837 | |
| Registration Number: | 2911836 | TRADEMARK |
| | | |

900304540 REEL: 005383 FRAME: 0378

| Property Type | Number | Word Mark |
|----------------------|---------|----------------|
| Registration Number: | 3243510 | MASTERCARE |
| Registration Number: | 3044626 | MASTERSOLUTION |
| Registration Number: | 3044627 | MASTERSPEED |
| Registration Number: | 3374206 | ACCU-VALVE |
| Registration Number: | 3357782 | MELT-DISK |
| Registration Number: | 3442833 | FUSION SERIES |
| Registration Number: | 4019742 | MELT-LINK |
| Registration Number: | 3944700 | FEMTO-LITE |
| Registration Number: | 4081127 | MPET |
| Registration Number: | 4005759 | SPRINT |
| Registration Number: | 4261800 | MASTERPET |
| Registration Number: | 4589056 | IFLOW |
| Registration Number: | 4416822 | E-MULTI |

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Email: michael.barys@thomsonreuters.com

Correspondent Name: Elaine Carrera, Legal Assistant

Address Line 1: 80 Pine St

Address Line 2: c/o Cahill Gordon & Reindel LLP
Address Line 4: New York, NEW YORK 10005

| NAME OF SUBMITTER: Elaine Carrera | | |
|-----------------------------------|--------------------|--|
| SIGNATURE: | /Michael Barys TR/ | |
| DATE SIGNED: | 10/17/2014 | |

Total Attachments: 18

source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page1.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page2.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page3.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page4.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page5.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page7.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page8.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page9.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page10.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page10.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page11.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page12.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page13.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page14.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page15.tif

source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page16.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page17.tif source=36. Supplement No. 1 to Canadian IP Security Agreement (TRADEMARKS)#page18.tif

SUPPLEMENT NO. 1 TO THE INTELLECTUAL PROPERTY SECURITY AGREEMENT

This SUPPLEMENT NO. 1 (this "Supplement No. 1") dated as of October 17, 2014, to the INTELLECTUAL PROPERTY SECURITY AGREEMENT, dated as of March 28, 2013, by and among the Persons listed on the signature pages hereto (the "Grantors"), and BANK OF AMERICA, N.A., as collateral agent for the Secured Parties (in such capacity, together with its successors in such capacity, the "Agent").

- A. Capitalized terms used herein and not otherwise defined herein (including terms used in the preamble and the recitals) shall have the meanings assigned to such terms in the Canadian Security Agreement, dated as of March 28, 2013 (as amended, restated, amended and restated, supplemented or otherwise modified, the "Security Agreement"), by and among MOLD-MASTERS (2007) LIMITED., a corporation formed under the laws of Canada ("Canadian Borrower"), each of the Subsidiaries listed on Annex A thereto, and BANK OF AMERICA, N.A., a national banking association, as collateral agent for the Secured Parties (the "Agent").
- B. The rules of construction and other interpretive provisions specified in Sections 1.2 through 1.7 of the Credit Agreement shall apply to this Supplement, including terms defined in the preamble and recitals hereto.
- C. Pursuant to Section 4.3(e) of the Security Agreement, Grantors have agreed to execute or otherwise authenticate this Supplement No. 1 for recording the Security Interest granted under the Canadian Security Agreement to the Agent in such Grantors' Registered Intellectual Property with the Canadian Intellectual Property Office or any similar offices in any province or territory of Canada or any other country, group of countries or any political subdivision thereof necessary to perfect the Security Interest hereunder in such Registered Intellectual Property.

Accordingly, the Agent and Grantors agree as follows:

- SECTION 1. <u>Grant of Security</u>. The Grantors hereby grant to the Agent for the benefit of the Secured Parties a security interest in all of such Grantors' right, title and interest in and to the Registered Intellectual Property set forth in Schedule A hereto (collectively, the "<u>Collateral</u>").
- SECTION 2. Security for Canadian Secured Obligations. The grant of a security interest in the Collateral by Grantors under this Supplement No. 1 secures the payment of all amounts that constitute part of the Canadian Secured Obligations and would be owed to the Agent or the Secured Parties but for the fact that they are unenforceable or not allowable due to the existence of a bankruptcy or proceeding applicable to bankruptcy or insolvency, reorganization or similar proceeding involving such Grantors.
- SECTION 3. <u>Recordation</u>. Grantors authorize and requests that this Supplement No. 1 be recorded at the Canadian Intellectual Property Office or any similar offices in any other country, group of countries or any political subdivision thereof.
- SECTION 4. <u>Grants, Rights and Remedies</u>. This Supplement No. 1 has been entered into in conjunction with the provisions of the Security Agreement. Grantors hereby acknowledge and confirm that the grant of the security interest hereunder to, and the rights and remedies of, the Agent with respect to the Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated herein by reference as if fully set forth herein. In the event of any conflict between the terms of this Supplement No. 1 and the terms of the Security Agreement, the terms of the Security Agreement shall govern.

SECTION 5. <u>Counterparts</u>. This Supplement No. 1 may be executed by one or more of the parties to this Supplement No. 1 on any number of separate counterparts (including by facsimile or other electronic transmission (i.e. a "pdf" or "tif")), and all of said counterparts taken together shall be deemed to constitute one and the same instrument.

SECTION 6. <u>GOVERNING LAW</u>. THIS SUPPLEMENT NO. 1 AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAWS OF THE PROVINCE OF ONTARIO AND THE LAWS OF CANADA APPLICABLE THEREIN, WITHOUT REGARD TO CONFLICT OF LAW PRINCIPLES.

SECTION 7. Severability. Any provision of this Supplement No. 1 that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof and in the Security Agreement, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. The parties hereto shall endeavor in good-faith negotiations to replace the invalid, illegal or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the invalid, illegal or unenforceable provisions.

SECTION 8. <u>Notices</u>. All notices, requests and demands pursuant hereto shall be made in accordance with Section 14.3 of the Credit Agreement. All communications and notices hereunder to Grantors shall be given to it in care of the Canadian Borrower at the Canadian Borrower's address set forth in Section 14.3 of the Credit Agreement.

SECTION 9. <u>Expenses</u>. Grantors agree to reimburse the Agent for its reasonable, documented and invoiced out-of-pocket costs and expenses in connection with this Supplement No. 1, in accordance with Section 14.2 of the Credit Agreement.

SECTION 10. Release of Security Interest. In connection with the termination or release of Security Interests evidenced by the Security Agreement, the Agent shall execute and deliver to any Grantor, at such Grantor's expense, all documents that such Grantor shall reasonably request to evidence such termination or release.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, Grantor and the Agent have duly executed this Supplement No. 1 as of the day and year first above written.

MOLD-MASTERS (2007) LIMITED, as Grantor

By:

Name: Ronald M. Krisanda

Title: President

[Signature Page to Supplement No. 1 to Canadian IP Security Agreement]

BANK OF AMERICA, N.A., as Agent

Name: Brad H. Breidenbach Title: Senior Vice President

REEL: 005383 FRAME: 0384

SCHEDULE A TO THE INTELLECTUAL PROPERTY CANADIAN SECURITY AGREEMENT

A. Canadian Intellectual Property

PATENTS:

| Registered Owner/Grantor | Patent | Patent No. |
|-----------------------------|----------------------------------|------------|
| Mold-Masters (2007) | CLOSED LOOP CONTROL OF AUXILIARY | 2828014 |
| Limited | INJECTION UNIT | |
| Mold-Masters (2007) | COINJECTION HOT RUNNER INJECTION | 2811247 |
| Limited | MOLDING SYSTEM | |
| Mold-Masters (2007) | INJECTION MOLDING COOLING CORE | 2255798 |
| Limited | HAVING SPIRAL GROOVES | |
| Mold-Masters (2007) | SPLIT THREAD INSERT | 2807860 |
| Limited | | |
| Mold-Masters (2007) | INJECTION MOLDING NOZZLE WITH | 2152664 |
| Limited | PRESSED IN HEATING ELEMENT AND | |
| | INTEGRAL COLLAR PORTION | |
| Mold-Masters (2007) | NOZZLE TIP AND SEAL | 2452112 |
| Limited | | |
| Mold-Masters (2007) | INJECTION MOLDING VALVE MEMBER | 2261367 |
| Limited | ACTUATING MECHANISM | |
| Mold-Masters (2007) | INJECTION MOLDING APPARATUS WITH | 2262175 |
| Limited | REMOVABLE NOZZLE SEAL | |

B. U.S. Intellectual Property

PATENTS:

| Owner | Patent/Application No. | Title |
|----------------|------------------------|--|
| | | |
| MOLD-MASTERS | | Injection Molding Apparatus Having Rotating Vane and Method of |
| (2007) LIMITED | 8062025B2 | Operating Same |
| MOLD-MASTERS | | |
| (2007) LIMITED | 5795599 | Injection Molding Nozzle Guide and Sealing Ring |
| MOLD-MASTERS | | Injection Molding Manifold with Multi-Axis Adjustable Manifold |
| (2007) LIMITED | 7172411B2 | Blocks and Nozzles |
| MOLD-MASTERS | | INJECTION MOLDING APPARATUS HAVING VALVE PIN |
| (2007) LIMITED | 7581944B2 | BUSHING |
| MOLD-MASTERS | | Valve Bushing With Vent Channels For An Injection Molding |
| (2007) LIMITED | 7407380B2 | Apparatus |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6921259B2 | A Valve Pin Guide for a Valve-Gated Nozzle |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7134868B2 | Diamond Coating of Nozzle Tip |
| MOLD-MASTERS | | |
| (2007) LIMITED | 8757998B2 | CoInjection Hot Runner Injection Molding System |

| Owner | Patent/Application No. | Title |
|----------------|------------------------|--|
| | -F-F | |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6561789B2 | Compact Cartridge Hot Runner Nozzle and Method of Making |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6648622B1 | Apparatus and Method For Multi-Layer Injection Molding |
| MOLD-MASTERS | | , , , |
| (2007) LIMITED | 7507081B2 | Injection Nozzle System and Injection Machine Incorporating Same |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7131834B2 | Valve Pin Adjustment Device |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7258536B2 | Mold and Hot Runner Controller Located on the Machine Platen |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6394784B1 | Compact Cartridge Hot Runner Nozzle and Method of Making |
| MOLD-MASTERS | | Injection Molding Nozzle Having A Bracing Component And A |
| (2007) LIMITED | 8475155B2 | Securing Component |
| MOLD-MASTERS | | |
| (2007) LIMITED | 8241032B2 | Single Level Manifold For An Injection Molding Apparatus |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7803306B2 | Individual Cavity Shut-Off For An Injection Molding Apparatus |
| MOLD-MASTERS | | , |
| (2007) LIMITED | 7614872B2 | Melt Redistribution Element for an injection Molding Apparatus |
| MOLD-MASTERS | | · · · · · · · · · · · · · · · · · · · |
| (2007) LIMITED | 7465165B2 | Configurable Manifold |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6761557B2 | Compact Cartridge Hot Runner Nozzle and Method of Making |
| MOLD-MASTERS | | Heated Nozzle Manifolds In Common Plane Interconnected |
| (2007) LIMITED | 5707664 | Through Connector Manifolds |
| MOLD-MASTERS | | |
| (2007) LIMITED | 8690563B2 | Hot Runner Manifolds Interconnected In A Common Plane |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6440350B1 | Apparatus and Method For Multi-Layer Injection Molding |
| MOLD-MASTERS | | |
| (2007) LIMITED | 8328546B2 | Auxiliary Injection Unit Integrated In Injection Molding System |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7850442B2 | EDGE-GATED NOZZLE |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7108502B2 | Hot Runner Nozzle with Interlaced Heater and Sensor |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7713046B2 | Coinjection Molding Apparatus and Related HotRunner Nozzle |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6860732B2 | Thermal Seal Between Manifold and Nozzle |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7547208B2 | Individual Cavity Shut-Off For An Injection Molding Apparatus |
| MOLD-MASTERS | | Method of Manufacturing Injection Molding Manifold Having A |
| (2007) LIMITED | 5441197 | Melt Passage With An Elbow |
| MOLD-MASTERS | 70225572 | |
| (2007) LIMITED | 7022278B2 | Valve Pin Locking Mechanism |
| MOLD-MASTERS | 7/70220D2 | LAND IN LAND CONTRACTOR |
| (2007) LIMITED | 7678320B2 | Anti-Drool Mechanism For a Sprue Bushing |
| MOLD-MASTERS | 7025505B2 | A Valve Pin Guiding and Alignment System for an Injection |
| (2007) LIMITED | 7025586B2 | Molding Machine |
| MOLD-MASTERS | 746000100 | INJECTION MOLDING NOZZLE WITH RECESSED |
| (2007) LIMITED | 7462031B2 | TERMINAL |

| Owner | Patent/Application No | . Title |
|----------------|-----------------------|---|
| | 1.1 | |
| MOLD-MASTERS | | |
| (2007) LIMITED | 8152513B2 | Multiple-Gate Injection Molding Apparatus |
| MOLD-MASTERS | | INJECTION MOLDING APPARATUS HAVING VALVE PIN |
| (2007) LIMITED | 8308475B2 | BUSHING |
| MOLD-MASTERS | 0300173B2 | Destinte |
| (2007) LIMITED | 7998390B2 | Multi- material Injection Molding Method and Apparatus |
| MOLD-MASTERS | 7776376B2 | Withit- material injection wording without and apparatus |
| (2007) LIMITED | 7244118B2 | Hot Runner Nozzle and Manifold Seal |
| MOLD-MASTERS | 7244116B2 | Trot Rumer Nozzie and Manifold Scar |
| (2007) LIMITED | 5843361 | Injection Molding Manifolds with Melt Connector Bushing |
| MOLD-MASTERS | 3843301 | Stack Injection Molding Apparatus with Separately Actuated Arrays |
| | 7086852B2 | of Valve Gates |
| (2007) LIMITED | /U80832B2 | of valve Gates |
| MOLD-MASTERS | 6112281 | |
| (2007) LIMITED | 6113381 | Injection Molding Valve Member Actuating Mechanism |
| MOLD-MASTERS | (2224657) | |
| (2007) LIMITED | 6323465B1 | Externally Heated Hot-Runner Nozzle with Resistance Wire |
| MOLD-MASTERS | | Injection Molding Apparatus Having Melt Transfer and Dividing |
| (2007) LIMITED | 6030198 | Bushing |
| MOLD-MASTERS | | Injection Molding Apparatus Having Melt Bore Through The Front |
| (2007) LIMITED | 5935615 | End of The Pin |
| MOLD-MASTERS | | Method for Fast Manufacturing and Assembling of Hot Runner |
| (2007) LIMITED | 7877163B2 | Systems |
| MOLD-MASTERS | | Tip Assembly Having at Least Three Components for Hot Runner |
| (2007) LIMITED | 7108503B2 | Nozzle |
| MOLD-MASTERS | | Injection molding apparatus with a one-piece gate insert locating a |
| (2007) LIMITED | 5849343 | cylindrical valve member |
| MOLD-MASTERS | | Injection Molding Component with Heating Element and Method of |
| (2007) LIMITED | 7040378B2 | Making |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7517214B2 | Valve Bushing Having Thermally Insulative Component |
| MOLD-MASTERS | | , |
| (2007) LIMITED | 7766646B2 | Injection Molding Apparatus with Plate Actuation of Valve Pins |
| MOLD-MASTERS | | Injection Molding Apparatus having Edge-gated Runnerless Nozzle |
| (2007) LIMITED | 8206145B2 | and Related Method of Tip Removal |
| MOLD-MASTERS | | 1 |
| (2007) LIMITED | 7320590B2 | Manifold Plug for an Injection Molding Apparatus |
| | | Extruded Shape for Distribution of Electrical Wiring, Hydraulic |
| MOLD-MASTERS | | Fluid and Cooling Fluid around a Hot Runner System, Inside an |
| (2007) LIMITED | 7320588B2 | Injection Mold |
| MOLD-MASTERS | | , |
| (2007) LIMITED | 7131833B2 | Nozzle with Thermally Conductive Device |
| MOLD-MASTERS | , 10100000 | Injection Molding Apparatus having Edge-gated Runnerless Nozzle |
| (2007) LIMITED | 8202082 | and Related Method of Tip Removal |
| MOLD-MASTERS | 0202002 | and related fredhod of Tip removal |
| (2007) LIMITED | 7972132B2 | Injection Molding Valve Gated Hot Runner Nozzle |
| MOLD-MASTERS | 171213202 | CYCLE COUNTING SYSTEM FOR INJECTION MOLDING |
| (2007) LIMITED | 8425216B2 | ASSEMBLY |
| MOLD-MASTERS | 0723210D2 | AUGENIDET |
| (2007) LIMITED | 7753676B2 | Multi-Piece Valve Pin Bushing |
| | 113301002 | Multi-1 lees valve I in bushing |
| MOLD-MASTERS | 5705202 | Four Hagted Norrala Manifolds Interconnected in a Common Di- |
| (2007) LIMITED | 5705202 | Four Heated Nozzle Manifolds Interconnected in a Common Plane |
| MOLD-MASTERS | 75507(202 | Once I can Drawing Control For Interest on Malding |
| (2007) LIMITED | 7559762B2 | Open Loop Pressure Control For Injection Molding |

| Owner | Patent/Application No. | Title |
|----------------|---|---|
| | 11 | |
| MOLD-MASTERS | | |
| (2007) LIMITED | 8465688B2 | Injection Molding Appartus Having Magnetic Valve Pin Coupling |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6780003B2 | Removable Heater For A Hot Runner Nozzle |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6302680B1 | Injection Molding Apparatus with Removable Nozzle Seal |
| MOLD-MASTERS | | Gap Seal Between a Nozzle and a Mold Component in an Injection |
| (2007) LIMITED | 6988883B2 | Molding Apparatus |
| MOLD-MASTERS | | Method and Apparatus for Distributing Melt in a Multi-Level Stack |
| (2007) LIMITED | 6852265B2 | Mold |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7618253B2 | Multiple-Gate Injection Molding Apparatus |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7168941B2 | Thermal Seal Between Manifold and Nozzle |
| MOLD-MASTERS | | |
| (2007) LIMITED | 8167608B2 | Melt Channel Geometries For An Injection Molding System |
| MOLD-MASTERS | | VALVE-GATED INJECTION MOLDING NOZZLE HAVING AN |
| (2007) LIMITED | 7544056B2 | ANNULAR FLOW |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6955534B2 | Improved Valve to Valve Melt Transfer Device |
| MOLD-MASTERS | | Hot Runner Nozzle With A Tip, A Tip Surrounding Piece And An |
| (2007) LIMITED | 7137807B2 | Alignment Piece |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6348171B1 | Drool control apparatus and method |
| MOLD-MASTERS | 00.101.111 | Hot Runner Manifold Plug for Rheological Balance in Hot Runner |
| (2007) LIMITED | 7320589B2 | Injection Molding |
| MOLD-MASTERS | 1,1111111111111111111111111111111111111 | Retainer for a mold gate insert for use in an injection molding |
| (2007) LIMITED | 7370417B2 | apparatus |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6638053B2 | Compact Cartridge Hot Runner Nozzle and Method of Making |
| MOLD-MASTERS | | Tip Assembly Having at Least Three Components for Hot Runner |
| (2007) LIMITED | 7780434B2 | Nozzle |
| MOLD-MASTERS | | Small Pitch Nozzle with a Thermally Conductive Insert for an |
| (2007) LIMITED | 6945767B2 | Injection Molding Machine |
| MOLD-MASTERS | | , , , , , , , , , , , , , , , , , , , |
| (2007) LIMITED | 8142182B2 | Injection Molding Appartus Having Magnetic Valve Pin Coupling |
| MOLD-MASTERS | | <u> </u> |
| (2007) LIMITED | 6962492B2 | Gap Seal Between Nozzle Components |
| MOLD-MASTERS | | • |
| (2007) LIMITED | 7175419B2 | Hot Runner Co-injection Nozzle |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7201335B2 | Injection Nozzle Tip |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7918660B2 | Injection Molding Actuator Position Sensing |
| MOLD-MASTERS | | Transfer Seal For A Removable Nozzle Tip Of An Injection |
| (2007) LIMITED | 7131832B2 | Molding Apparatus |
| MOLD-MASTERS | | |
| (2007) LIMITED | RE38396 | Method of Making Injection Molding Cooled Thread Split Inserts |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7168943B2 | Guided Valve Pin For An Injection Molding Apparatus |
| MOLD-MASTERS | | , , , , , , , , , , , , , , , , , , , |
| (2007) LIMITED | 7377768B2 | Hot Runner Nozzle with Interlaced Heater and Sensor |
| (2007) LIMITED | T377/68B2 | Hot Kunner Nozzle with Interlaced Heater and Sensor |

| Owner | Patent/Application No. | Title |
|----------------|------------------------|---|
| | | |
| MOLD-MASTERS | | Injection Molding Apparatus Having Inter-Manifold Melt Transfer |
| (2007) LIMITED | 5935616 | Bushings |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7303720B2 | Melt Transfer Device For A Stack Injection Molding Apparatus |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6992269B2 | An Injection Nozzle Having a Heated Head Portion |
| MOLD-MASTERS | | MODULAR INJECTION NOZZLE HAVING A THERMAL |
| (2007) LIMITED | 7559760B2 | BARRIER |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6789745B1 | Injection Nozzle Tip |
| MOLD-MASTERS | | |
| (2007) LIMITED | 8758002B2 | Quick-Change Molding System For Injection Molding |
| MOLD-MASTERS | | |
| (2007) LIMITED | 8449287B2 | Valve Pin For Accommodating Side Loading |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6447283B1 | Injection molding heater with melt bore therethrough |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7780433B2 | Hot Runner Nozzle Having Thermal Insert At Downstream End |
| MOLD-MASTERS | | INJECTION MOLDING NOZZLE WITH RECESSED |
| (2007) LIMITED | 7513771B2 | TERMINAL |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7524183B2 | Front-mountable, Edge-gating Nozzle |
| MOLD-MASTERS | | |
| (2007) LIMITED | 8469687B2 | CoInjection Hot Runner Injection Molding System |
| MOLD-MASTERS | | Injection Molding Apparatus Having Magnetic Valve Pin Coupling |
| (2007) LIMITED | 7931455B2 | and Related Method |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7314367B2 | Insulating Collar for an Injection Molding Apparatus |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7238019B2 | Injection Molding Nozzle and Tip |
| MOLD-MASTERS | | |
| (2007) LIMITED | RE41648E | Valve-Gated Injection Molding System with Side-Mounted Actuator |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7396226B2 | Edge Gate Nozzle Seal |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7658606B2 | Edge Gated Injection Molding Apparatus |
| MOLD-MASTERS | | |
| (2007) LIMITED | 61767004 | Injection molding cooled cavity insert |
| MOLD-MASTERS | | Heater For A Manifold of An Injection Molding Apparatus / Plate |
| (2007) LIMITED | 7806681B2 | Heater For A Manifold of An Injection Molding Apparatus |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7192270B2 | Tight Pitch Nozzle With Individual Valve Gate Control |
| MOLD-MASTERS | | Heat Dissipation Device For And Method of Dissipating Heat |
| (2007) LIMITED | 7118703B2 | From A Nozzle |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7510392B2 | Injection nozzle with planar heater |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7192268B2 | Metering device for a nozzle of an injection molding apparatus |
| MOLD-MASTERS | (2=10===: | Five Layer Injection Molding Apparatus Having Four Position |
| (2007) LIMITED | 6274075B1 | Valve Member Actuating Mechanism |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7722351B2 | Injection Molding Appartus Having Magnetic Valve Pin Coupling |

| Owner | Patent/Application No. | Title |
|-----------------|------------------------|--|
| MOLD 15 Comme 2 | | Madalah da Salah S |
| MOLD-MASTERS | | Method and Apparatus for Distributing Melt in a Multi-Level Stack |
| (2007) LIMITED | 7122145B2 | Mold |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7611349B2 | Injection Molding Nozzle Having An Annular Flow Tip |
| MOLD-MASTERS | | Injection Molding Apparatus Having Melt Bore Through The Front |
| (2007) LIMITED | 6270711B1 | End of The Pin |
| MOLD-MASTERS | | |
| (2007) LIMITED | 5658604 | Injection Molding Carbide Torpedo |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7553150B2 | Valve Pin Actuating Device For A Hot Runner Apparatus |
| MOLD-MASTERS | | |
| (2007) LIMITED | 8715547B2 | CLOSED LOOP CONTROL OF AUXILIARY INJECTION UNIT |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6769901B2 | Injection Nozzle System and Injection Machine Incorporating Same |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7175420B2 | Valve gated injection molding system with independent flow control |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6350401B1 | Method of Multi-Layer Injection Molding |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7614869B2 | A Manifold Nozzle Connection For An Injection Molding System |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6884061B2 | Metering device for a nozzle of an injection molding apparatus |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7210917B2 | Two Position Double Injection Molding Apparatus and Method |
| MOLD-MASTERS | | SYSTEM FOR USE IN PERFORMANCE OF INJECTION |
| (2007) LIMITED | 8280544B2 | MOLDING OPERATIONS |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7344372B2 | Injection Molding Nozzle Having An Annular Flow Tip |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7326049B2 | Cast Hot Runner Manifold for Injection Molding Apparatus |
| MOLD-MASTERS | 020220672 | |
| (2007) LIMITED | 8282386B2 | Injection Molding Apparatus |
| MOLD-MASTERS | 7.11 C.102D2 | |
| (2007) LIMITED | 7416402B2 | Sprue Bar Anti-Drool with Side Entry |
| MOLD-MASTERS | 5052777 | N. I.B. |
| (2007) LIMITED | 5853777 | Nozzle Retaining Apparatus |
| MOLD-MASTERS | 6060041 | |
| (2007) LIMITED | 6062841 | Sprue Gated Multi-Layer Injection Molding Apparatus |
| MOLD-MASTERS | 5614000 | Injection molding nozzle with pressed in heating element and |
| (2007) LIMITED | 5614233 | integral collar portion |
| MOLD-MASTERS | 710074002 | Lateral Catina Injection Malding A |
| (2007) LIMITED | 7198740B2 | Lateral Gating Injection Molding Apparatus |
| MOLD-MASTERS | (750(19D2 | Injection Manifold Having a Value Die Cerities Design |
| (2007) LIMITED | 6752618B2 | Injection Manifold Having a Valve Pin Guiding Device |
| MOLD-MASTERS | 7565001D0 | Method for Fast Manufacturing and Assembling of Hot Runner |
| (2007) LIMITED | 7565221B2 | Systems |
| MOLD-MASTERS | 7100501D0 | Injection Nortale Custom and Injection Marking Incompanting Com- |
| (2007) LIMITED | 7182591B2 | Injection Nozzle System and Injection Machine Incorporating Same |
| MOLD-MASTERS | 770210002 | Thormal Shroud and Mathod of Making Sama |
| (2007) LIMITED | 7703188B2 | Thermal Shroud and Method of Making Same |
| MOLD-MASTERS | 7062760D2 | Injection Molding Apparatus Having Spring and Magnet Valve Pin |
| (2007) LIMITED | 7963762B2 | Coupling |

| Owner | Patent/Application No. | Title |
|----------------|------------------------|---|
| | | |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6655945B1 | Apparatus and Method for Three Layer Injection Molding |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7462030B2 | Nozzle Having a Nozzle Body with Heated and Unheated Nozzle |
| MOLD-MASTERS | | Injection molding apparatus with nozzle advanceable to mount side |
| (2007) LIMITED | 5536165 | gate seals |
| MOLD-MASTERS | | A Valve Pin Guiding and Alignment System for an Injection |
| (2007) LIMITED | 7223092B2 | Molding Machine |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7918663B2 | Injection Molding Nozzle Wedge Seal |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6009616 | Method of Making Injection Molding Nozzle With Tip Insert |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7128566B2 | Valve Pin Guiding Tip For A Nozzle |
| MOLD-MASTERS | | Mold Flow Transfer Mechanism Having a Melt Homogenizing |
| (2007) LIMITED | 7115226B2 | Device |
| MOLD-MASTERS | | Gap Seal Between a Nozzle and a Mold Component in an Injection |
| (2007) LIMITED | 6945768B2 | Molding Apparatus |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7179081B2 | Front-mountable, Edge-gating Nozzle |
| MOLD-MASTERS | | Injection Molding Apparatus Having An Elongated Nozzle |
| (2007) LIMITED | RE41536E | Incorporating Multiple Nozzle Bodies in Tandem |
| MOLD-MASTERS | TEL 11330E | Theorporating Manaple Mozzie Bodies in Tundon |
| (2007) LIMITED | 6318990B1 | Injection Molding Nozzle Apparatus |
| MOLD-MASTERS | 0310330 D 1 | Injection Molding Apparatus Having A Nozzle Tip Component For |
| (2007) LIMITED | 7988445B2 | Taking Nozzle Out of Service |
| MOLD-MASTERS | 770077312 | Taking Nozzie Out of Service |
| (2007) LIMITED | RE40478E | Valve Pin With Thermocouple |
| MOLD-MASTERS | KL40476E | INJECTION MOLDING APPARATUS HAVING A MAGNETIC |
| (2007) LIMITED | 8308476 | VALVE PIN COUPLING |
| MOLD-MASTERS | 0300470 | VALVETEV COOLEEVO |
| (2007) LIMITED | 7513772B2 | Injection Molding Nozzle With Valve Pin Alignment |
| MOLD-MASTERS | 731377202 | Injection Molaing Mozzie With Valve I in Angiment |
| (2007) LIMITED | 6230384B1 | Method of Making an Injection Molding Cylindrical Manifold Insert |
| MOLD-MASTERS | 0230384B1 | Injection Molding Component with Heating Element and Method of |
| (2007) LIMITED | 6405785B1 | Making |
| MOLD-MASTERS | 0403783B1 | Making |
| (2007) LIMITED | 6135751 | Injection Molding Apperatus Heying Molt Dividing Pushings |
| | 0133731 | Injection Molding Apparatus Having Melt Dividing Bushings |
| MOLD-MASTERS | 7766647D2 | Onen I can Bussayus Control For Injection Molding |
| (2007) LIMITED | 7766647B2 | Open Loop Pressure Control For Injection Molding |
| MOLD-MASTERS | (77.((00D.1 | Method and Injection Molding Machine for Producing Injection- |
| (2007) LIMITED | 6776600B1 | Molded Articles, Especially Toothbrush Bodies or Toothbrushes |
| MOLD-MASTERS | 71.40.40(7)2 | Hat Danna Namala midd D |
| (2007) LIMITED | 7143496B2 | Hot Runner Nozzle with Removable Tip and Tip Retainer |
| MOLD-MASTERS | 7.00.00000 | W.B. |
| (2007) LIMITED | 7686603B2 | Hot Runner Actuator |
| MOLD-MASTERS | P.746.53.1- | |
| (2007) LIMITED | RE40584E | Nozzle End for Multiple Tipped Injection Molding Nozzle |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7029269B2 | In-Line Valve Gated Nozzle |
| MOLD-MASTERS | | Injection Molding Apparatus Having Mold Cores With Reverse |
| (2007) LIMITED | 6203310B1 | Taper |

| Owner | Patent/Application No. | Title |
|------------------|------------------------|---|
| | | |
| | | Extruded Shape for Distribution of Electrical Wiring, Hydraulic |
| MOLD-MASTERS | | Fluid and Cooling Fluid around a Hot Runner System, Inside an |
| (2007) LIMITED | 7364426B2 | Injection Mold |
| MOLD-MASTERS | 730112022 | Injection Flora |
| (2007) LIMITED | 7306454B2 | Front-mountable, Edge-gating Nozzle |
| MOLD-MASTERS | 7300-3-102 | Tip Assembly Having at Least Three Components for Hot Runner |
| (2007) LIMITED | 6921257B2 | Nozzle |
| MOLD-MASTERS | 0921237B2 | NOZZIC |
| (2007) LIMITED | 7125243B2 | Removable Heater For A Hot Runner Nozzle |
| MOLD-MASTERS | /123243B2 | Removable Heater For A Hot Runner Nozzie |
| | 6017200 | Injection molding applied gate insert |
| (2007) LIMITED | 6017209 | Injection molding cooled gate insert |
| MOLD-MASTERS | 7127906D2 | Thermally Delegand Het Dynner North |
| (2007) LIMITED | 7137806B2 | Thermally Balanced Hot Runner Nozzle |
| MOLD-MASTERS | 5000226 | Injection molding apparatus having nozzles with elongated |
| (2007) LIMITED | 5980236 | mounting flanges |
| MOLD-MASTERS | 657570171 | Method and Apparatus for Distributing Melt in a Multi-Level Stack |
| (2007) LIMITED | 6575731B1 | Mold |
| MOLD-MASTERS | | Injection Molding Apparatus and Linear Actuator with Position |
| (2007) LIMITED | 7044728B2 | Sensor Therefore |
| MOLD-MASTERS | | VALVE-PIN BUSHING ASSEMBLY FOR AN INJECTION |
| (2007) LIMITED | 8113812B2 | MOLDING APPARATUS |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7527490B2 | Coinjection Molding Apparatus and Related HotRunner Nozzle |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6030202 | Injection Molding Three Portion Gate and Cavity Insert |
| MOLD-MASTERS | | Tip Assembly Having at Least Three Components for Hot Runner |
| (2007) LIMITED | 6971869B2 | Nozzle |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7413432B2 | Hot Runner Nozzle with Interlaced Heater and Sensor |
| MOLD-MASTERS | | |
| (2007) LIMITED | 8414285B2 | Multiple-Gate Injection Molding Apparatus |
| MOLD-MASTERS | | |
| (2007) LIMITED | RE38265 | Injection Molding Apparatus With Cooled Core |
| MOLD-MASTERS | | Stack Injection Molding Apparatus with Separately Actuated Arrays |
| (2007) LIMITED | 6755641B1 | of Valve Gates |
| MOLD-MASTERS | | Mold Material Processing Device, Method & Apparatus for |
| (2007) LIMITED | 7044191B2 | Producing Same |
| MOLD-MASTERS | | Gap Seal Between a Nozzle and a Mold Component in an Injection |
| (2007) LIMITED | 6869276B2 | Molding Apparatus |
| MOLD-MASTERS | | <u> </u> |
| (2007) LIMITED | 7671304B2 | Multi Zone Temperature Controller For Injection Molding System |
| MOLD-MASTERS | | Method for Fast Manufacturing and Assembling of Hot Runner |
| (2007) LIMITED | 7236841B2 | Systems |
| MOLD-MASTERS | T | † |
| (2007) LIMITED | 5952016 | Side Gated Injection Molding Apparatus With Actuated Manifold |
| MOLD-MASTERS | | 70 |
| (2007) LIMITED | 6196826B1 | Seepage system for an injection molding apparatus |
| MOLD-MASTERS | | 1 0/ |
| (2007) LIMITED | 7775788B2 | Melt Transfer Components for A Stack Molding System |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7306455B2 | Guided Valve Pin For An Injection Molding Apparatus |
| MOLD-MASTERS | 7.500 10002 | Injection Molding Component with Heating Element and Method of |
| (2007) LIMITED | 6701997B2 | Making |
| (2001) EIIIII ED | 0.01777102 | MININE |

| Owner | Patent/Application No. | Title |
|--------------------------------|------------------------|--|
| | | |
| MOLD-MASTERS | | |
| (2007) LIMITED | 5652003 | Injection Molding Nozzle With Radial Vanes |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6488881B2 | Injection molding cooled cavity insert |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6077067 | Injection Molding Cooling Core Having a Ribbed Cap |
| MOLD-MASTERS | | Nozzle and Method for Making a Nozzle with a Removable and |
| (2007) LIMITED | 7118704B2 | Replaceable Heating Device |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7165965B2 | Nozzle Tip and Seal |
| MOLD-MASTERS | | |
| (2007) LIMITED | 5700499 | Valve Member Locating Insert For Injection Molding Nozzle |
| MOLD-MASTERS | | |
| (2007) LIMITED | 5820899 | Injection Molding Nozzle with Edge Gate Inserts and Sealing Ring |
| MOLD-MASTERS | 6074101 | Five Layer Injection Molding Apparatus Having Four Position |
| (2007) LIMITED | 6074191 | Valve Member Actuating Mechanism |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7731489B2 | Valve For Co-injection Molding Apparatus |
| MOLD-MASTERS | 0.5.01.220.2 | |
| (2007) LIMITED | 8568133B2 | Melt Channel Geometries For An Injection Molding System |
| MOLD-MASTERS | 0752102D2 | |
| (2007) LIMITED | 8753102B2 | CoInjection Hot Runner Injection Molding System |
| MOLD-MASTERS | 00.45221 | 0.15 ml 1.1 |
| (2007) LIMITED | 8845321 | Split Thread Insert |
| MOLD-MASTERS | 72.47.60.4D2 | |
| (2007) LIMITED | 7347684B2 | Adjustable Valve Pin Actuator For An Injection Molding Apparatus |
| MOLD-MASTERS | 7659605D2 | Edge Coted Injection Molding Appearatus |
| (2007) LIMITED MOLD-MASTERS | 7658605B2 | Edge Gated Injection Molding Apparatus |
| (2007) LIMITED | 7156648B2 | Injection nozzla with planer haster |
| MOLD-MASTERS | /130048B2 | Injection nozzle with planar heater |
| (2007) LIMITED | 7270538B2 | Mixing Device |
| MOLD-MASTERS | 7270338B2 | Heat Dissipation Device for And Method of Dissipating Heat From |
| (2007) LIMITED | 7105123B2 | a Manifold |
| MOLD-MASTERS | 7103123B2 | a maintolu |
| (2007) LIMITED | 7182893B2 | Valve Gated Nozzle with Pressure Sensor Linked to the Valve Pin |
| MOLD-MASTERS | 710207302 | varie dated (volume residue densor Elinea to the varie in |
| (2007) LIMITED | 6890473B2 | Improved Alignment Collar for a Nozzle |
| MOLD-MASTERS | 007017302 | Improved rangiment condition at vozzie |
| (2007) LIMITED | 5695793 | Injection Molding Valve Member With Head and Neck Portions |
| MOLD-MASTERS | 0000100 | Multi-Cavity Injection Molding Apparatus Splitting Melt Near |
| (2007) LIMITED | RE39935 | Nozzle Front |
| MOLD-MASTERS | TELES 5 5 5 5 | TOBLE TOR |
| (2007) LIMITED | 5641526 | Injection Molding Nozzle Manifold |
| MOLD-MASTERS | | Method of Three Layer Injection Molding With Sequential and |
| (2007) LIMITED | 6099780 | Simultaneous Coinjection |
| MOLD-MASTERS | | SEALING ARRANGEMENT FOR AN EDGE GATED NOZZLE |
| (2007) LIMITED | 7845936B2 | IN AN INJECTION MOLDING SYSTEM |
| MOLD-MASTERS | | 1 - 4 |
| (2007) LIMITED | 6893249B2 | Valve Pin Actuating Mechanism |
| MOLD-MASTERS | | MELT BALANCING ELEMENT IN A MANIFOLD MELT |
| (2007) LIMITED | 8066506B2 | CHANNEL |
| () | | |

| Owner | Patent/Application No. | Title |
|----------------|------------------------|--|
| MOLD MACRES C | | WALVE GAMED DANGEROVANOLDING VOCATION |
| MOLD-MASTERS | | VALVE-GATED INJECTION MOLDING NOZZLE HAVING AN |
| (2007) LIMITED | 7364425B2 | ANNULAR FLOW |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6625873B1 | Injection Molding Nozzle With Tip Insert |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6835060B2 | Gate Assembly for Reducing Drooling of Melf From a Sprue Bar |
| MOLD-MASTERS | | Multi-layer injection molding apparatus having adjustable valve |
| (2007) LIMITED | 5942257 | member |
| MOLD-MASTERS | | |
| (2007) LIMITED | 8480391B2 | Quick-Change Molding System For Injection Molding |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7189071B2 | Telescopic Manifold Nozzle Seal |
| MOLD-MASTERS | ,10,0,122 | Telescopic Hamilton Hozzie Geni |
| (2007) LIMITED | 7407379B2 | Injection Molding Nozzle with Rounded Tip |
| MOLD-MASTERS | 740737702 | Injection Wording Wezzle with Rounded Tip |
| (2007) LIMITED | 6095790 | Injection Molding Cylindrical Manifold Insert and Method |
| | 0093790 | Injection Wolding Cylindrical Manifold Insert and Method |
| MOLD-MASTERS | 6040750D3 | V 1 D 1' A 11 |
| (2007) LIMITED | 6840758B2 | Valve Bushing Assembly |
| MOLD-MASTERS | | Method and Apparatus for Measuring the Temperature of Molten |
| (2007) LIMITED | RE40952E | Material in a Mold Cavity |
| MOLD-MASTERS | | Side Gated Injection Molding Apparatus With Radially Mounted |
| (2007) LIMITED | 5591465 | Gate Inserts |
| MOLD-MASTERS | | |
| (2007) LIMITED | 6398537B2 | Shuttle System for an Apparatus and Method for Injection Molding |
| MOLD-MASTERS | | |
| (2007) LIMITED | RE38920 | Injection Molding Nozzle Screwed into Mounting Flange |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7025585B2 | Mold Gate Insert with a Thermal Barrier |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7462314B2 | Multiple Materials Injection Molding Method |
| MOLD-MASTERS | , 10201122 | The state of the s |
| (2007) LIMITED | 6079972 | Injection Molding Cooling Core Having Spiral Grooves |
| MOLD-MASTERS | 0017512 | Injection Modeling Cooling Core Huving opinic Grooves |
| (2007) LIMITED | 7874833B2 | Injection Molding Runner Apparatus Having Pressure Seal |
| MOLD-MASTERS | 7874833 B 2 | Injection Wolding Runner Apparatus Having Hessure Sear |
| | 73555503 | Missa Malding Manifold (Constl Ditaly) |
| (2007) LIMITED | 725555B2 | Micro Molding Manifold (Small Pitch) |
| MOLD-MASTERS | 5644025 | H C Fl (M.I.) |
| (2007) LIMITED | 5644835 | Heating Element Method |
| MOLD-MASTERS | | |
| (2007) LIMITED | 5792493 | Connector Bushing for Injection Molding Manifolds |
| MOLD-MASTERS | | Tip Assembly Having at Least Three Components for Hot Runner |
| (2007) LIMITED | 7891969B2 | Nozzle |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7125242B2 | Decompression Device For An Injection Molding Apparatus |
| | | Method and Apparatus for Removing Melt from a Dead Melt |
| MOLD-MASTERS | | Residue Stagnation Zone Adjoining a Valve Pin In An Injection |
| (2007) LIMITED | 7470122B2 | Molding Apparatus |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7018197B2 | Gap Seal Between Nozzle Components |
| MOLD-MASTERS | | • |
| (2007) LIMITED | 7048532B2 | Stroke Limiter for Valve Actuating Mechanism |
| \~\U | | |
| MOLD-MASTERS | | |

| Owner | Patent/Application No. | Title |
|--------------------------------|------------------------|---|
| | | |
| MOLD-MASTERS | | Method and Apparatus for an Automated Injection Molding |
| (2007) LIMITED | 6675055B1 | Configuring & Manufacturing System |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7381050B1 | Snap on Flange |
| MOLD-MASTERS | | Injection Molding Apparatus having Edge-gated Runnerless Nozzle |
| (2007) LIMITED | 8210842B2 | and Related Method of Tip Removal |
| MOLD-MASTERS | | |
| (2007) LIMITED | 7438551B2 | Hot Runner Nozzle with Interlaced Heater and Sensor |
| MOLD-MASTERS | -1-210072 | |
| (2007) LIMITED | 7172409B2 | Injection Molding Valve Pin Bushing |
| MOLD-MASTERS | 7252400D2 | W. D. W. J. St. M. b. G. B. |
| (2007) LIMITED | 7252498B2 | Hot Runner Nozzle with Melt Sealing |
| MOLD-MASTERS | 0.475150D2 | |
| (2007) LIMITED | 8475158B2 | Edge-Gated Nozzle |
| MOLD-MASTERS | 7445444D2 | I (F I' (' MII' A |
| (2007) LIMITED | 7445444B2 | Insert For an Injection Molding Apparatus |
| MOLD-MASTERS | 025260702 | The American |
| (2007) LIMITED | 8353697B2 | Injection Molding Apparatus |
| MOLD-MASTERS | 7410254D2 | Value Catal Name and Danson Conseq L'aled to the Value D'a |
| (2007) LIMITED | 7410354B2 | Valve Gated Nozzle with Pressure Sensor Linked to the Valve Pin |
| MOLD-MASTERS | 716010102 | Mathod and American for Heating a Normale With Dadiout Engage |
| (2007) LIMITED | 7160101B2 | Method and Apparatus for Heating a Nozzle With Radiant Energy |
| MOLD-MASTERS | 6454550D1 | Mala Transfer Contain (Davies 1) |
| (2007) LIMITED | 6454558B1 | Melt Transfer System (Revised) |
| MOLD-MASTERS | D525502 | Hat Dynnag Controllag |
| (2007) LIMITED MOLD-MASTERS | D525592 | Hot-Runner Controller |
| (2007) LIMITED | 7226283B2 | Injection Molding Apparatus With A Melt Channel In Valve Pin |
| MOLD-MASTERS | 7220283B2 | injection wording Apparatus with A Meri Chainler in Varve Fin |
| (2007) LIMITED | 5494433 | Injection molding hot tip side gate seal with circumferential rim |
| MOLD-MASTERS | 3474433 | injection moraling not tip side gate scar with effectional time |
| (2007) LIMITED | 6830447B2 | Valve Gate Assembly for Injection Molding |
| MOLD-MASTERS | 003077702 | varve Gate Assembly for injection Wording |
| (2007) LIMITED | 7410353B2 | Edge Gated Injection Molding Apparatus |
| MOLD-MASTERS | 7 11033352 | Edge Cated Injection Florating Apparatus |
| (2007) LIMITED | 7824163b2 | Injection Molding System Having A Bus |
| MOLD-MASTERS | ,02.10002 | injection including System Tile (ing 112 us |
| (2007) LIMITED | 5720995 | Injection Molding Manifolds with Melt Connector Bushing |
| MOLD-MASTERS | 1 | |
| (2007) LIMITED | 5599567 | Cooled Thread Split Inserts for Injection Molding Preforms |
| MOLD-MASTERS | | 1 J |
| (2007) LIMITED | 4416822 | E-MULTI - Trademark test case |
| OWNER | Application No. | Title |
| MOLD-MASTERS | 11 | |
| (2007) LIMITED | 14/222,259 | CLOSED LOOP CONTROL OF AUXILIARY INJECTION UNIT |
| MOLD-MASTERS | | |
| (2007) LIMITED | 13/783218 | Valve Bushing For an Injection Molding Apparatus |
| MOLD-MASTERS | | |
| (2007) LIMITED | 61/914870 | Drop-In Hot Runner System |
| MOLD-MASTERS | | |
| (2007) LIMITED | 14/050399 | Melt Channel Geometries For An Injection Molding System |
| MOLD-MASTERS | | |
| (2007) LIMITED | 13/789201 | Edge-Gated Injection Molding Apparatus |

| Owner | Patent/Application No. | Title |
|----------------|------------------------|---|
| | | |
| MOLD-MASTERS | | |
| (2007) LIMITED | 61/986660 | Hot Runner System Sealing Arrangement |
| MOLD-MASTERS | | |
| (2007) LIMITED | 13/036051 | CAVITY INSERT FILM FLOW COOLING |
| MOLD-MASTERS | | |
| (2007) LIMITED | 61/945038 | Piston For A Hot Runner Valve Gate Actuator |
| MOLD-MASTERS | | |
| (2007) LIMITED | 13/803859 | Edge-Gated Injection Molding Apparatus |
| MOLD-MASTERS | | COINJECTION HOT RUNNER INJECTION MOLDING |
| (2007) LIMITED | 13/238074 | SYSTEM |
| MOLD-MASTERS | | |
| (2007) LIMITED | 13/721265 | STACK MOLD TRANSFER DEVICE |
| MOLD-MASTERS | | |
| (2007) LIMITED | 61/920807 | Extruder Feed Path Vibrator |
| MOLD-MASTERS | | |
| (2007) LIMITED | 13/880,407 | CoInjection Hot Runner Injection Molding System |

TRADEMARKS:

| Owner | Trademark | Registration/Application No. |
|----------------|-----------------|------------------------------|
| | | |
| MOLD-MASTERS | MERLIN | 2802817 |
| (2007) LIMITED | | |
| MOLD-MASTERS | MOLD-MASTERS | 1918627 |
| (2007) LIMITED | ACADEMY | |
| MOLD-MASTERS | MASTER-SHOT | 1186387 |
| (2007) LIMITED | | |
| MOLD-MASTERS | DURA CENTI-SHOT | 1933748 |
| (2007) LIMITED | | |
| MOLD-MASTERS | SCAN-MASTER | 1447183 |
| (2007) LIMITED | | |
| MOLD-MASTERS | DURA HECTO-SHOT | 1984430 |
| (2007) LIMITED | | |
| MOLD-MASTERS | DURA | 2042134 |
| (2007) LIMITED | | |
| MOLD-MASTERS | HOT EDGE | 1142933 |
| (2007) LIMITED | | |
| MOLD-MASTERS | DURA DECI-SHOT | 1932033 |
| (2007) LIMITED | | |
| MOLD-MASTERS | DURA FEMTO-SHOT | 2177077 |
| (2007) LIMITED | | |
| MOLD-MASTERS | DURA MEGA-SHOT | 2019486 |
| (2007) LIMITED | | |
| MOLD-MASTERS | DURA PICO-SHOT | 1932032 |
| (2007) LIMITED | | |
| MOLD-MASTERS | MASTER-PROBE | 1282175 |
| (2007) LIMITED | | |
| MOLD-MASTERS | MERLIN | 2389509 |
| (2007) LIMITED | | |
| MOLD-MASTERS | MOLD-MASTERS | 1020951 |
| (2007) LIMITED | | |

| Owner | Trademark | Registration/Application No. |
|--------------------------------|------------------|------------------------------|
| MOLD-MASTERS | MOLD-MASTERS | 1072894 |
| (2007) LIMITED | SYSTEM | 10/2894 |
| MOLD-MASTERS | MASTER-SERIES | 2940466 |
| (2007) LIMITED | MASTER-SERIES | 2940400 |
| MOLD-MASTERS | Nozzle Design 1 | 2911838 |
| (2007) LIMITED | Nozzie Desigii 1 | 2911636 |
| MOLD-MASTERS | Nozzle Design 2 | 2911837 |
| (2007) LIMITED | Nozzie Desigii 2 | 2911037 |
| MOLD-MASTERS | Nozzle Design 3 | 2911836 |
| (2007) LIMITED | Nozzie Desigii 5 | 2911830 |
| MOLD-MASTERS | MasterCARE | 3243510 |
| | WasterCARE | 3243310 |
| (2007) LIMITED MOLD-MASTERS | MASTERSOLUTION | 3044626 |
| (2007) LIMITED | MASTERSOLUTION | 3044626 |
| MOLD-MASTERS | MASTERSPEED | 3044627 |
| | MASTERSPEED | 3044627 |
| (2007) LIMITED | ACCU-VALVE | 2274207 |
| MOLD-MASTERS | ACCU-VALVE | 3374206 |
| (2007) LIMITED | MELT DICK | 2257702 |
| MOLD-MASTERS | MELT-DISK | 3357782 |
| (2007) LIMITED | ELIGIONI GEDIEG | 2442022 |
| MOLD-MASTERS | FUSION SERIES | 3442833 |
| (2007) LIMITED | MELELINIZ | 4010742 |
| MOLD-MASTERS | MELT-LINK | 4019742 |
| (2007) LIMITED | EEMEO LIEE | 2044700 |
| MOLD-MASTERS | FEMTO-LITE | 3944700 |
| (2007) LIMITED | MPET | 4001127 |
| MOLD-MASTERS (2007) LIMITED | MPEI | 4081127 |
| | SPRINT | 4005750 |
| MOLD-MASTERS (2007) LIMITED | SPKINI | 4005759 |
| MOLD-MASTERS | MASTERPET | 4261800 |
| | MASTERPET | 4201800 |
| (2007) LIMITED | TELOW | 4590056 |
| MOLD-MASTERS | IFLOW | 4589056 |
| (2007) LIMITED | E MIII TI | 4416922 |
| MOLD-MASTERS | E-MULTI | 4416822 |
| (2007) LIMITED | | |

RECORDED: 10/17/2014