

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

Assignment ID: PATI783281

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	RELEASE OF SECURITY INTEREST

**CONVEYING PARTY DATA**

Name	Execution Date
Bank of America, N.A., as Collateral Agent	01/27/2025

**RECEIVING PARTY DATA**

<b>Company Name:</b>	Barnes Group Inc.
<b>Street Address:</b>	123 Main Street
<b>City:</b>	Bristol
<b>State/Country:</b>	CONNECTICUT
<b>Postal Code:</b>	06010
<b>Company Name:</b>	Synventive Molding Solutions, Inc.
<b>Street Address:</b>	123 Main Street
<b>City:</b>	Bristol
<b>State/Country:</b>	CONNECTICUT
<b>Postal Code:</b>	06010

**PROPERTY NUMBERS Total: 161**

Property Type	Number
Patent Number:	9011736
Patent Number:	11148335
Patent Number:	9005509
Patent Number:	9636858
Patent Number:	9623598
Patent Number:	10160150
Patent Number:	10173356
Patent Number:	11186022
Patent Number:	6729871
Patent Number:	6712600
Patent Number:	6746228
Patent Number:	9205587
Patent Number:	8349244
Patent Number:	8562336
Patent Number:	8328549

PATENT

<b>Property Type</b>	<b>Number</b>
Patent Number:	8091202
Patent Number:	8282388
Patent Number:	11186021
Patent Number:	10982786
Patent Number:	10583598
Patent Number:	10857714
Patent Number:	10926445
Patent Number:	10569458
Patent Number:	11007695
Patent Number:	11186020
Patent Number:	11673305
Patent Number:	6683283
Patent Number:	8016581
Patent Number:	7029268
Patent Number:	7270537
Patent Number:	7597828
Patent Number:	8297836
Patent Number:	10005215
Patent Number:	10632657
Patent Number:	10625455
Patent Number:	10639835
Patent Number:	10889037
Patent Number:	10046497
Patent Number:	10625451
Patent Number:	9682504
Patent Number:	11052590
Patent Number:	10046496
Patent Number:	10953581
Patent Number:	11628608
Patent Number:	10493674
Patent Number:	9827701
Patent Number:	10359124
Patent Number:	9498909
Patent Number:	9878477
Patent Number:	11084196
Patent Number:	9492960
Patent Number:	9937648
Patent Number:	10899056

<b>Property Type</b>	<b>Number</b>
Patent Number:	11007692
Patent Number:	9873216
Patent Number:	11524435
Patent Number:	11389999
Patent Number:	11618196
Patent Number:	10875221
Patent Number:	10875226
Patent Number:	10384385
Patent Number:	10899055
Patent Number:	10414079
Patent Number:	9908273
Patent Number:	10307951
Patent Number:	11491693
Patent Number:	10625456
Patent Number:	11065793
Patent Number:	11065794
Patent Number:	9144929
Patent Number:	9427905
Patent Number:	10245772
Patent Number:	10166710
Patent Number:	10500775
Patent Number:	9682507
Patent Number:	9321205
Patent Number:	9944006
Patent Number:	9604399
Patent Number:	9662820
Patent Number:	9724861
Patent Number:	9738024
Patent Number:	9440389
Patent Number:	9873219
Patent Number:	10052801
Patent Number:	10792849
Patent Number:	11148333
Patent Number:	10940622
Patent Number:	11402982
Patent Number:	7677539
Patent Number:	10274114
Patent Number:	10215251

Property Type	Number
Patent Number:	9822838
Patent Number:	9032587
Patent Number:	10579089
Patent Number:	11110506
Patent Number:	9447836
Patent Number:	9243710
Patent Number:	10060484
Patent Number:	8434340
Patent Number:	9744576
Patent Number:	10441983
Patent Number:	8069881
Patent Number:	6899199
Patent Number:	7240768
Patent Number:	6749185
Patent Number:	10508700
Patent Number:	9920848
Patent Number:	10288180
Patent Number:	9222362
Patent Number:	8292274
Patent Number:	D860111
Patent Number:	11499599
Patent Number:	10935096
Patent Number:	9188184
Patent Number:	8011645
Patent Number:	7261286
Patent Number:	7066455
Patent Number:	7083164
Patent Number:	7350628
Patent Number:	7387181
Patent Number:	8567476
Patent Number:	7717156
Patent Number:	8912472
Patent Number:	10472695
Application Number:	18100926
Application Number:	17130196
Application Number:	17408562
Application Number:	17690040
Application Number:	17876607

Property Type	Number
Application Number:	17725888
Application Number:	63150469
Application Number:	63244579
PCT Number:	US2251971
PCT Number:	US2118973
PCT Number:	US2162318
PCT Number:	US2154114
PCT Number:	US2115005
PCT Number:	US2115008
PCT Number:	US2216699
PCT Number:	US2223947
PCT Number:	US2221874
PCT Number:	US2243567
PCT Number:	US2054354
PCT Number:	US2036978
PCT Number:	US2220968
PCT Number:	US2221868
Application Number:	17108006
Application Number:	17108018
Application Number:	17964151
Application Number:	16217443
Application Number:	17194423
Application Number:	18090779
Application Number:	17113234
Application Number:	17410120
Application Number:	17113294
Application Number:	63416801
Application Number:	18034994
Application Number:	17551619
Application Number:	63397021
Application Number:	16897861
Application Number:	18112530

**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.*

**Phone:** (800)221-0102

**Email:** ipteam@coagencyglobal.com

**Correspondent Name:** Khadijah Sampson  
**Address Line 1:** 1025 Connecticut Ave NW, Suite 712  
**Address Line 4:** Washington, DISTRICT OF COLUMBIA 20036

**ATTORNEY DOCKET NUMBER:** 2632673KSPT

**NAME OF SUBMITTER:** Khadijah Sampson

**SIGNATURE:** /Khadijah Sampson/

**DATE SIGNED:** 01/31/2025

**Total Attachments: 9**

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**RELEASE OF SECURITY INTEREST IN PATENTS**

This RELEASE OF SECURITY INTEREST IN PATENTS (this “*Release*”) dated as of January 27, 2025 (the “*Effective Date*”) is made by Bank of America, N.A., as collateral agent for the Secured Parties (together with its successors and assigns, in such capacity, the “*Collateral Agent*”) in favor of, Barnes Group Inc. and Synventive Molding Solutions, Inc.

WHEREAS, pursuant to the certain Collateral Agreement dated as of August 31, 2023, (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the “*Collateral Agreement*”), among the Pledgors, the other pledgors party thereto and the Collateral Agent. The parties hereto agree as follows:

WHEREAS, the Notice of Grant of Security Interest in Patents dated August 31, 2023 was recorded with the United States Patent and Trademark Office on September 19, 2023 at Reel/Frame 064950/0142 (the “*Patent Security Agreement*”);

WHEREAS, NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Collateral Agent hereby agrees as follows:

**SECTION 1. *Defined Terms.***

Capitalized terms used in this Agreement and not otherwise defined herein have the meanings specified in the Collateral Agreement or Patent Security Agreement, as applicable. All terms defined in the Uniform Commercial Code and not defined in this Agreement or the Collateral Agreement have the meanings specified therein. The rules of construction specified in Section 1.1(b) of the Collateral Agreement also apply to this Agreement.

**SECTION 2. *Release.***

The Collateral Agent, on behalf of the Secured Parties, without representation or warranty of any kind, hereby irrevocably releases, discharges, terminates and cancels all of its security interest in, and the right to set off against, any and all right, title and interest that the Collateral Agent and any of the Secured Parties may have in and to all of the IP Collateral, including, without limitation, the patent registrations and applications set forth Schedule I attached hereto, granted pursuant to the Collateral Agreement and the Patent Security Agreement. If and to the extent that the Collateral Agent has acquired any right, title or interest in and to any of the IP Collateral, the Collateral Agent, without representation or warranty of any kind, hereby irrevocably re-transfers, re-conveys and re-assigns such right, title or interest to the Pledgors, as applicable.

The Collateral Agent, on behalf of the Secured Parties, without representation or warranty of any kind, authorizes and requests the recordation of this Release with the USPTO and authorizes any other filings necessary to evidence the release, termination, cancellation and discharge of the Collateral Agent’s security interests, liens and other rights granted under the Collateral Agreement or the Patent Security Agreement with respect to the IP Collateral. In accordance with Section 5.15 of the Collateral Agreement, Pledgors shall pay all reasonable and documented out-of-pocket expenses incurred by the Collateral Agent (and its representatives and counsel) in connection with this Release.

**SECTION 3. *Termination.***

The Collateral Agent, without representation or warranty of any kind, terminates and cancels the Collateral Agreement and the Patent Security Agreement.

**SECTION 4. *Governing Law.***

**THIS AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES UNDER THIS AGREEMENT SHALL BE CONSTRUED IN ACCORDANCE WITH AND GOVERNED BY THE LAWS OF THE STATE OF NEW YORK.**

**SECTION 5. *Further Assurances.***

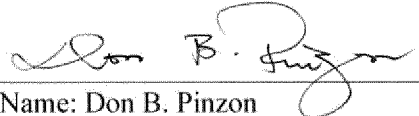
The Collateral Agent shall promptly and duly execute and deliver to the Pledgors all further releases and other documents, and take all other actions as the Pledgors may reasonably request in writing, all at the Pledgors' sole cost and expense, for the purpose of obtaining the release of the security interest granted under the Collateral Agreement or the Patent Security Agreement in the IP Collateral.

[Signature Page Follow]



IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first above written.

**Bank of America, N.A.**, as Collateral Agent

By:   
Name: Don B. Pinzon  
Title: Vice President

Patents Owned by Barnes Group Inc.

*U.S. Patent Registrations*

<b>Title</b>	<b>Patent No.</b>	<b>Owner</b>
INJECTION MOLDING FLOW CONTROL APPARATUS AND METHOD	US 9,011,736	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPARATUS AND METHOD	US 11,148,335	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPARATUS AND METHOD	US 9,005,509	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPARATUS AND METHOD	US 9,636,858	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPARATUS AND METHOD	US 9,623,598	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPARATUS AND METHOD	US 10,160,150	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPARATUS AND METHOD	US 10,173,356	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPARATUS AND METHOD	US 11,186,022	Synventive Molding Solutions, Inc.
INJECTION MOULDING DEVICE HAVING A COOLED VALVE PIN GUIDE BUSH	US 6,729,871	Synventive Molding Solutions, Inc.
ACTUATING CYLINDER FOR A VALVE GATED INJECTION MOULDING DEVICE	US 6,712,600	Synventive Molding Solutions, Inc.
INJECTION MOULDING DEVICE COMPRISING VALVE PIN POSITION INDICATOR	US 6,746,228	Synventive Molding Solutions, Inc.
FLOW CONTROL APPARATUS AND METHOD	US 9,205,587	Synventive Molding Solutions, Inc.
ACTUATOR MOUNT SYSTEM	US 8,349,244	Synventive Molding Solutions, Inc.
ACTUATOR MOUNT SYSTEM	US 8,562,336	Synventive Molding Solutions, Inc.
HEATING APPARATUS FOR FLUID FLOW CHANNEL	US 8,328,549	Synventive Molding Solutions, Inc.
COUPLING METHOD AND APPARATUS	US 8,091,202	Synventive Molding Solutions, Inc.
COUPLING METHOD AND APPARATUS	US 8,282,388	Synventive Molding Solutions, Inc.
ADJUSTED CAVITY INJECTION FLUID PRESSURES IN INJECTION MOLDING SYSTEM	US 11,186,021	Synventive Molding Solutions, Inc.
VALVE SYSTEM IN AN INJECTION MOLDING SYSTEM	US 10,982,786	Synventive Molding Solutions, Inc.
NOZZLE CONFIGURATION FOR PURGING FLOW CHANNEL	US 10,583,598	Synventive Molding Solutions, Inc.
ACTUATOR APPARATUS AND METHOD ENABLING MULTIPLE PISTON VELOCITIES	US 10,857,714	Synventive Molding Solutions, Inc.
CONTROLLER ARRANGEMENT FOR INJECTION MOLDING SYSTEM	US 10,926,445	Synventive Molding Solutions, Inc.
CONTROLLER ARRANGEMENT FOR INJECTION MOLDING SYSTEM	US 10,569,458	Synventive Molding Solutions, Inc.
ACTUATOR COOLING APPARATUS AND METHOD	US 11,007,695	Synventive Molding Solutions, Inc.
ACTUATOR WITH ECCENTRIC PIN DRIVE	US 11,186,020	Synventive Molding Solutions, Inc.

Title	Patent No.	Owner
PARTIALLY ROTATED ECCENTRIC DRIVE FOR VALVE PIN	US 11,673,305	Synventive Molding Solutions, Inc.
APPARATUS AND METHOD FOR HEATING INJECTION MOLDING FLUIDS	US6,683,283	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPRATUS AND METHOD	US8,016,581	Synventive Molding Solutions, Inc.
NON-COAXIAL INJECTION MOLDING VALVE FLOW CONTROL	US7,029,268	Synventive Molding Solutions, Inc.
NON-COAXIAL INJECTION MOLDING VALVE FLOW CONTROL	US7,270,537	Synventive Molding Solutions, Inc.
NON-COAXIAL INJECTION MOLDING VALVE FLOW CONTROL	US7,597,828	Synventive Molding Solutions, Inc.
HEATER WITH INTEGRATED AND ISOLATED THERMOCOUPLE ASSEMBLY	US8,297,836	Synventive Molding Solutions, Inc.
ACTUATOR COOLING APPARATUS AND METHOD	US10,005,215	Synventive Molding Solutions, Inc.
ACTUATOR COOLING APPARATUS AND METHOD	US10,632,657	Synventive Molding Solutions, Inc.
ACTUATOR COOLING APPARATUS AND METHOD	US10,625,455	Synventive Molding Solutions, Inc.
ACTUATOR COOLING APPARATUS AND METHOD *TRACK ONE*	US10,639,835	Synventive Molding Solutions, Inc.
ACTUATOR COOLING APPARATUS AND METHOD *TRACK ONE*	US10,889,037	Synventive Molding Solutions, Inc.
ACTUATOR COOLING APPARATUS AND METHOD	US10,046,497	Synventive Molding Solutions, Inc.
ACTUATOR COOLING APPARATUS AND METHOD	US10,625,451	Synventive Molding Solutions, Inc.
CONVECTION COOLED ACTUATOR	US 9,682,504	Synventive Molding Solutions, Inc.
ACTUATOR COOLING APPARATUS AND METHOD	US 11,052,590	Synventive Molding Solutions, Inc.
ACTUATOR COOLING APPARATUS AND METHOD	US 10,046,496	Synventive Molding Solutions, Inc.
ACTUATOR COOLING APPARATUS AND METHOD	US 10,953,581	Synventive Molding Solutions, Inc.
ACTUATOR COOLING APPARATUS AND METHOD	US 11628608	Synventive Molding Solutions, Inc.
FLUID CHANNEL FLOW DISRUPTION	US 10,493,674	Synventive Molding Solutions, Inc.
OPEN LOOP CONTROL OF FORCE REDUCING VALVE PIN IN INJECTION MOLDING SYSTEM	US 9,827,701	Synventive Molding Solutions, Inc.
VALVE SYSTEM IN AN INJECTION MOLDING SYSTEM	US 10,359,124	Synventive Molding Solutions, Inc.
ELECTRIC ACTUATOR SLOW WITHDRAWAL	US 9,498,909	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPARATUS AND METHOD	US 9,878,477	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPARATUS AND METHOD	US 11,084,196	Synventive Molding Solutions, Inc.
NON-COAXIALLY MOUNTED ELECTRIC ACTUATOR AND TRANSMISSION	US 9,492,960	Synventive Molding Solutions, Inc.
NON-COAXIALLY MOUNTED ELECTRIC ACTUATOR AND TRANSMISSION	US 9,937,648	Synventive Molding Solutions, Inc.
NON-COAXIALLY MOUNTED ELECTRIC ACTUATOR AND TRANSMISSION	US 10,899,056	Synventive Molding Solutions, Inc.
NON-COAXIALLY MOUNTED ELECTRIC ACTUATOR AND TRANSMISSION *TRACK ONE*	US 11,007,692	Synventive Molding Solutions, Inc.
ACTUATOR SYSTEM FOR ROTATING VALVE PIN	US 9,873,216	Synventive Molding Solutions, Inc.
INJECTION MOLDING APPARATUS WITH INTEGRATED ACTUATOR ELECTRONIC DRIVE	US 11,524,435	Synventive Molding Solutions, Inc.

<b>Title</b>	<b>Patent No.</b>	<b>Owner</b>
ELECTRIC ACTUATOR DRIVE FOR INJECTION MOLDING FLOW CONTROL	US 11,389,999	Synventive Molding Solutions, Inc.
SEQUENTIAL INJECTION TO MULTIPLE MOLD CAVITIES	US 11618196	Synventive Molding Solutions, Inc.
INJECTION MOLDING APPARATUS AND METHOD FOR AUTOMATIC CYCLE TO CYCLE CAVITY INJECTION	US 10,875,221	Synventive Molding Solutions, Inc.
INJECTION MOLDING APPARATUS AND METHOD FOR AUTOMATIC CYCLE TO CYCLE CAVITY INJECTION	US 10,875,226	Synventive Molding Solutions, Inc.
REDUCED VELOCITY CONTROL BASED ON SENSED SYSTEM CONDITION	US 10,384,385	Synventive Molding Solutions, Inc.
VALVE PIN AND NOZZLE CONFIGURATION AND METHOD OF CONTROL	US 10,899,055	Synventive Molding Solutions, Inc.
ACTUATOR MECHANICALLY ENABLING MULTIPLE PIN VELOCITIES	US 10,414,079	Synventive Molding Solutions, Inc.
FLOW CONTROL APPARATUS AND METHOD	US 9,908,273	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPARATUS AND METHOD	US 10,307,951	Synventive Molding Solutions, Inc.
LARGE PART INJECTION MOLD APPARATUS AND PROCESS	US 11,491,693	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPARATUS AND METHOD	US 10,625,456	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPARATUS AND METHOD	US 11,065,793	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPARATUS AND METHOD	US 11,065,794	Synventive Molding Solutions, Inc.
APPARATUS AND METHOD FOR DETECTING A POSITION OF AN ACTUATOR PISTON	US 9,144,929	Synventive Molding Solutions, Inc.
APPARATUS AND METHOD FOR DETECTING A POSITION OF AN ACTUATOR PISTON	US 9,427,905	Synventive Molding Solutions, Inc.
APPARATUS AND METHOD FOR DETECTING A POSITION OF AN ACTUATOR PISTON	US 10,245,772	Synventive Molding Solutions, Inc.
APPARATUS AND METHOD FOR DETECTING A POSITION OF AN ACTUATOR PISTON	US 10,166,710	Synventive Molding Solutions, Inc.
APPARATUS AND METHOD FOR DETECTING A POSITION OF AN ACTUATOR PISTON	US 10,500,775	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPARATUS	US 9,682,507	Synventive Molding Solutions, Inc.
VALVE PIN ROTATION LIMITER	US 9,321,205	Synventive Molding Solutions, Inc.
VALVE PIN POSITION ADJUSTER	US 9,944,006	Synventive Molding Solutions, Inc.
INJECTION MOLDING FLOW CONTROL APPARATUS AND METHOD	US 9,604,399	Synventive Molding Solutions, Inc.
CONTROLLED REDUCED VELOCITY ACTUATOR SYSTEM	US 9,662,820	Synventive Molding Solutions, Inc.
CONTROLLED REDUCED VELOCITY ACTUATOR SYSTEM	US 9,724,861	Synventive Molding Solutions, Inc.
CONTROLLED REDUCED VELOCITY ACTUATOR SYSTEM	US 9,738,024	Synventive Molding Solutions, Inc.
CONTROLLED VALVE PIN MOVEMENT BASED ON CAVITY SENSOR FEEDBACK	US 9,440,389	Synventive Molding Solutions, Inc.
CONTROLLED VALVE PIN MOVEMENT BASED ON CAVITY SENSOR FEEDBACK	US 9,873,219	Synventive Molding Solutions, Inc.
END OF STROKE ACTUATOR BLEED	US 10,052,801	Synventive Molding Solutions, Inc.

<b>Title</b>	<b>Patent No.</b>	<b>Owner</b>
REMOTELY MOUNTED ELECTRIC MOTOR DRIVING A VALVE PIN IN AN INJECTION MOLDING APPARATUS	US 10,792,849	Synventive Molding Solutions, Inc.
LINEAR TO LINEAR VALVE PIN DRIVE DURING INJECTION CYCLE	US 11,148,333	Synventive Molding Solutions, Inc.
VALVE PIN POSITION AND VELOCITY CONTROL METHOD AND APPARATUS	US 10,940,622	Synventive Molding Solutions, Inc.
GRAPHICAL INTERFACE FOR INJECTION MOLDING SYSTEMS	US 11,402,982	Synventive Molding Solutions, Inc.
FORCE CONTROL UNIT	US 7677539	BARNES GROUP INC.
TORQUE RETENTION ARRANGEMENT	US 10274114	BARNES GROUP INC.
INTERFERENCE ARRANGEMENT FOR SPRING	US 10215251	BARNES GROUP INC.
INTERFERENCE ARRANGEMENT FOR SPRING	US 9822838	BARNES GROUP INC.
UNIVERSAL STOP TUBE	US 9032587	BARNES GROUP INC.
MODULAR NON-LINEAR SPRING SYSTEM	US 10579089	BARNES GROUP INC.
VARIABLE PULSATING, GAP CONTROL, AUTO-LEARNING PRESS CUSHION DEVICE	US 11110506	BARNES GROUP INC.
FRICTION DAMPENED MECHANICAL STRUT	US 9447836	BARNES GROUP INC.
FLEXIBLE CONNECTION ROD	US 9243710	BARNES GROUP INC.
TORQUE CONVERTER CLUTCH	US 10060484	BARNES GROUP INC.
METHOD FOR FORMING A STAMPED METAL PART	US 8434340	BARNES GROUP INC.
LOCK RING	US 9744576	BARNES GROUP INC.
LOCK RING	US 10441983	BARNES GROUP INC.
SPRING AND SPRING PROCESSING METHOD	US 8069881	BARNES GROUP INC.
FLAPPER FINGER VALVE ASSEMBLY	US 6899199	BARNES GROUP INC.
FLAPPER FINGER VALVE	US 7240768	BARNES GROUP INC.
CUSHION ASSEMBLY AND METHOD	US 6749185	BARNES GROUP INC.
HIGH FATIGUE ARCUATE SPRING	US 10508700	BARNES GROUP INC.
MULTIPLE PARTS REED VALVE AND METHOD OF MANUFACTURING	US 9920848	BARNES GROUP INC.
MULTIPLE PARTS REED VALVE AND METHOD OF MANUFACTURING	US 10288180	BARNES GROUP INC.
HYBRID METAL LEADING EDGE PART AND METHOD FOR MAKING THE SAME	US 9222362	BARNES GROUP INC.
DAMPENED COMPRESSION SPRING ROD	US 8292274	BARNES GROUP INC.
SPRING CAP	US D860111	BARNES GROUP INC.
ELECTROMECHANICAL SPRING SYSTEM	US 11,499,599	BARNES GROUP INC.
ELECTROMECHANICAL SPRING SYSTEM	US 10935096	BARNES GROUP INC.
TELESCOPING STRUT	US 9188184	BARNES GROUP INC.
TWO STAGE HOOD LIFT SPRING ASSEMBLY	US 8011645	BARNES GROUP INC.
TWO STAGE HOOD LIFT SPRING ASSEMBLY	US 7261286	BARNES GROUP INC.
SELF-CENTERING MECHANICAL STRUT	US 7066455	BARNES GROUP INC.
CUSHION AND CUSHION CYLINDER FOR RAM OR BOLSTER OF A PRESS	US 7083164	BARNES GROUP INC.

<b>Title</b>	<b>Patent No.</b>	<b>Owner</b>
HIGH FORCE LOCKING SPRING	US 7350628	BARNES GROUP INC.
HOOD LIFT SYSTEM	US 7387181	BARNES GROUP INC.
DEVICE FOR CREATING AN ANGULAR BIASING FORCE	US 8567476	BARNES GROUP INC.
DEVICE FOR CREATING AN ADJUSTABLE ANGULAR FORCE	US 7717156	BARNES GROUP INC.
INDUCTION HEATING OF SPRINGS	US 8912472	BARNES GROUP INC.
INDUCTION HEATING OF SPRINGS	US 10472695	BARNES GROUP INC.

*Patent Applications filed with the USPTO*

<b>Application Title</b>	<b>Application Number</b>	<b>Owner</b>
INJECTION MOLDING DEVICE AND METHOD	WO PCT/US2022/051971	BARNES GROUP INC.
WIRELESS SENSOR WITH BEACON TECHNOLOGY	US 18/100,926	BARNES GROUP INC.
DISRUPTED FLOW THROUGH INJECTION MOLDING FLOW CHANNEL	US 17/130,196	Synventive Molding Solutions, Inc.
COOLED ELECTRIC ACTUATOR CONTROLLED INJECTION	US 17/408,562	Synventive Molding Solutions, Inc.
INJECTION MOLDING APPARATUS WITH INSULATED INTEGRATED ACTUATOR ELECTRONIC DRIVE	US 17/690,040	Synventive Molding Solutions, Inc.
INJECTION MOLDING APPARATUS WITH INSULATED INTEGRATED ACTUATOR ELECTRONIC DRIVE	US 17/876,607	Synventive Molding Solutions, Inc.
SEQUENTIAL INJECTION TO MULTIPLE MOLD CAVITIES	WO PCT/US2021/018973	Synventive Molding Solutions, Inc.
INJECTION MOLDING APPARATUS WITH COOLED INTEGRATED ACTUATOR ELECTRONIC DRIVE	WO PCT/US2021/062318	Synventive Molding Solutions, Inc.
SPRING CUSHIONED VALVE PIN	WO PCT/US2021/054114	Synventive Molding Solutions, Inc.
METHOD AND APPARATUS FOR CONTROLLED INJECTION FLUID FLOW	WO PCT/US2021/015005	Synventive Molding Solutions, Inc.
METHOD AND APPARATUS FOR CONTROLLED INJECTION FLUID FLOW	WO PCT/US2021/015008	Synventive Molding Solutions, Inc.
ELECTRIC ACTUATOR DRIVE FOR INJECTION MOLDING FLOW CONTROL	US 17/725,888	Synventive Molding Solutions, Inc.
SPRING CUSHIONED PIN AND METHOD	US 63/150,469	Synventive Molding Solutions, Inc.
SPRING CUSHIONED ACTUATOR	WO PCT/US2022/016699	Synventive Molding Solutions, Inc.
SYSTEM CONTAINING MULTIVARIATE SENSORS	WO PCT/US2022/023947	BARNES GROUP INC.
INJECTION MOLDING SYSTEM AND METHOD WITH TASK BASED USER INTERFACE	WO PCT/US2022/021874	BARNES GROUP INC.
ELECTRIC FLUID DRIVEN ACTUATOR AND METHOD	US 63/244,579	BARNES GROUP INC.
ELECTRO FLUID DRIVEN ACTUATOR AND METHOD	WO PCT/US2022/043567	BARNES GROUP INC.

Application Title	Application Number	Owner
INJECTION MOLDING APPARATUS AND METHOD FOR AUTOMATIC CYCLE TO CYCLE CAVITY INJECTION	US 17/108,006	Synventive Molding Solutions, Inc.
INJECTION MOLDING APPARATUS AND METHOD FOR AUTOMATIC CYCLE TO CYCLE CAVITY INJECTION	US 17/108,018	Synventive Molding Solutions, Inc.
LARGE PART INJECTION MOLD APPARATUS AND PROCESS	US 17/964,151	Synventive Molding Solutions, Inc.
APPARATUS AND METHOD FOR CONTROLLING INJECTION MOLDING	US 16/217,443	Synventive Molding Solutions, Inc.
VALVE PIN POSITION AND VELOCITY CONTROL METHOD AND APPARATUS	US 17/194,423	Synventive Molding Solutions, Inc.
METHOD AND APPARATUS FOR CONTROLLED INJECTION FLUID FLOW	US 18/090,779	Synventive Molding Solutions, Inc.
WIRELESS SENSOR	US 17/113,234	BARNES GROUP INC.
VARIABLE PULSATING, GAP CONTROL, AUTO-LEARNING PRESS CUSHION DEVICE	US 17/410,120	BARNES GROUP INC.
WIRELESS SENSOR WITH BEACON TECHNOLOGY	US 17/113,294	BARNES GROUP INC.
INJECTION MOLDING DEVICE AND METHOD	US 63/416801	BARNES GROUP INC.
SPRING CUSHIONED VALVE PIN	US 18/034,994	Synventive Molding Solutions, Inc.
ELECTRIC ACTUATOR DRIVE FOR INJECTION MOLDING FLOW CONTROL	WO PCT/US2020/054354	Synventive Molding Solutions, Inc.
INJECTION MOLDING APPARATUS AND METHOD FOR AUTOMATIC CYCLE TO CYCLE CAVITY INJECTION	US 17/964,151	Synventive Molding Solutions, Inc.
ELECTROMECHANICAL SPRING SYSTEM	WO PCT/US2020/036978	BARNES GROUP INC.
PISTON CYLINDER DEVICE WITH PROTECTION ARRANGEMENT AND METHOD OF PROTECTING A PISTON CYLINDER DEVICE AGAINST OVERLOAD OR FAILURE OF THE PISTON CYLINDER DEVICE	US 17/551,619	BARNES GROUP INC.
LUBRICATION ATOMIZATION FOR A GAS CYLINDER ARRANGEMENT	WO PCT/US2022/020968	BARNES GROUP INC.
TUBE IN TUBE LUBRICATION FOR A GAS CYLINDER	WO PCT/US2022/021868	BARNES GROUP INC.
ALMEN STRIP HOLDER WHICH SIMULATES SHADOWING EFFECT	US 63/397,021	BARNES GROUP INC.
ELECTROMECHANICAL SPRING SYSTEM	US 16/897,861	BARNES GROUP INC.
SEQUENTIAL INJECTION TO MULTIPLE MOLD CAVITIES	US 18/112,530	BARNES GROUP INC.