(Address, including zip code, o	of principal executive offices)		
Chelmsford, Massachusetts 01	824		
15 Elizabeth Drive	incorporation or organization)	Identification No.)	
	Delaware (State or other jurisdiction of	04-3040660 (I.R.S. Employer	
(Exact name of registrant as sp	ecified in its charter)		
BROOKS AUTOMATION, IN	NC.		
SECURITIES ACT OF 1933			
UNDER THE			
REGISTRATION STATEME	NT		
FORM S-8			
WASHINGTON, D.C. 20549			
SECURITIES AND EXCHAN	IGE COMMISSION		
UNITED STATES			
Registration No. 333 -			
As filed with the Securities and	l Exchange Commission on Nove	mber 30, 2017	
BROOKS AUTOMATION IN Form S-8 November 30, 2017	С		

BROOKS AUTOMATION, INC. AMENDED AND RESTATED DEFERRED COMPENSATION PLAN

(Full Title of the Plan)

Jason W. Joseph

Vice President, General Counsel and Corporate Secretary	
Brooks Automation, Inc.	
15 Elizabeth Drive	
Chelmsford, Massachusetts 01824	
(978) 262-2400	
(Name, address and telephone number, including area code, of agent for service)	vice)
Indicate by check mark whether the registrant is a large accelerated filer, an or a smaller reporting company. See the definitions of "large accelerated file company" in Rule 12b-2 of the Exchange Act.	
Large accelerated filer	Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company)	Smaller reporting company
	Emerging growth company
If an emerging growth company, indicate by check mark if the registrant has period for complying with any new or revised financial accounting standard of the Securities Act.	

CALCULATION OF REGISTRATION FEE

Title of Each Class of	Amount To Be	Proposed Maximum	Proposed Maximum	Amount of
Securities	Registered	Offering Price	Aggregate	Registration Fee
To Be Registered		Per Share	Offering Price	
Deferred Compensation	\$ 10,000,000	100%	\$ 10,000,000(2)	\$ 1,245.00
Obligations(1)				

- (1) The Deferred Compensation Obligations are unsecured obligations of Brooks Automation, Inc. to pay deferred compensation in the future in accordance with the terms of the Brooks Automation, Inc. Amended and Restated Deferred Compensation Plan (the "Plan").
- (2)The participants' deferral elections in accordance with the terms of the Plan will determine the amount of compensation deferred. Solely for purposes of determining the registration fee pursuant to Rule 457(h) under the Securities Act of 1933, as amended (the "Securities Act"), the amount of deferred compensation obligations registered is based on an estimate of compensation participants may defer under the Plan.

EXPLANATORY NOTE

In accordance with the instructional Note to Part I of Form S-8 as promulgated by the Securities and Exchange Commission (the "Commission"), the information specified by Part I of Form S-8 has been omitted from this Registration Statement on Form S-8 for offers of Deferred Compensation Obligations pursuant to the Plan. The documents containing the information specified in Part I will be delivered to the participants in the Plan covered by this Registration Statement as required by Rule 428(b)(1) under the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed by the Registrant with the Commission are incorporated herein by reference:

(a) the Registrant's Annual Report on Form 10-K for the year ended September 30, 2017 filed with the Commission on November 17, 2017; and

(b)the Registrant's Current Report on Form 8-K filed with the Commission on October 10, 2017.

All reports and other documents filed by the Registrant after the date hereof pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be part hereof from the date of filing of such reports and documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for the purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities.

The Deferred Compensation Obligations (the "Obligations") registered hereunder are the Registrant's unsecured general obligations to pay deferred compensation in the future pursuant to the Plan. The Plan, which is filed as Exhibit 4.1 to this Registration Statement, sets forth a description of the Obligations and is incorporated herein by reference in its entirety in response to this Item 4, pursuant to Rule 411(b)(3) under the Securities Act. The Obligations rank equally with other unsecured and unsubordinated indebtedness of the Registrant, from time to time outstanding, and are payable from the general assets of the Registrant. The Obligations are effectively subordinated to the Registrant's secured indebtedness, to the extent of the value of the collateral securing such indebtedness, and will be effectively subordinated in right of payment to all liabilities of its subsidiaries. The Obligations are unfunded bookkeeping accounts, the returns on which are measured by the performance of various benchmark investment funds, as selected by the participant in accordance with the terms of the Plan. The Plan allows eligible employee and director participants to annually defer up to 90% of their base salary, up to 100% of their annual bonus amount, up to 100% of any compensation received in the form of commissions and up to 100% of any director fees. The Registrant has the discretion to make additional contributions to the accounts of Plan participants in accordance with the terms of the Plan.

Amounts deferred may be distributed, as more specifically described in the Plan, during the participant's employment, during a Director's tenure on the Board of Directors, or in connection with a change in control of the Registrant or the participant's retirement, disability, death or other termination of employment or directorship. The Plan provides for payment in a lump sum or, in certain circumstances, in annual installments, as elected by the participant.

Item 5. Interests of Named Experts and Counsel.

None.

Item 6. Indemnification of Directors and Officers.

Section 102 of the Delaware General Corporation Law (the "DGCL") provides that a corporation may eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit.

Section 145 of the DGCL provides that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was an officer, director, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that the person's conduct was unlawful.

Section 145 further provides that a corporation may also indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that such person is or was an officer, director, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise, against expenses (including attorneys' fees) actually

and reasonably incurred by such person in connection with the defense or settlement of such action or suit provided that such person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the corporation's best interest, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Delaware Court of Chancery or the court in which such action or suit was brought determines that, despite an adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 145(g) of the DGCL authorizes a corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or enterprise, against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the corporation would otherwise have the power to indemnify such person under Section 145.

The Registrant's restated certificate of incorporation provides that no director of the Registrant shall be personally liable for any monetary damages for any breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the Registrant or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, or (iv) for any transaction from which the director derived an improper personal benefit. The Registrant's restated certificate of incorporation further provides for the indemnification of its directors and officers to the fullest extent permitted by Section 145 of the DGCL.

The Registrant's amended and restated bylaws provide that the Registrant may indemnify, and may advance expenses, to each covered person who is a party to, or was or is threatened to be made a party to, or is otherwise involved in any proceeding, as provided in the Registrant's amended and restated bylaws and to the fullest extent permitted by applicable law.

All of the Registrant's directors and officers are covered by insurance policies maintained by the Registrant against specified liabilities for actions taken in their capacities as such, including liabilities under the Securities Act of 1933, as amended. In addition, the Registrant has entered into or offered to enter into indemnification agreements with each of its directors and executive officers that provide for indemnification and expense advancement to the fullest extent permitted under the DGCL.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

The following exhibits are filed as a part of or incorporated by reference into this Registration Statement:

- 4.1<u>Brooks Automation, Inc. Amended and Restated Deferred Compensation Plan</u> (incorporated herein by reference to Exhibit 10.21 to the Registrant's Form 10-K, filed on November 17, 2017).
- 5.10pinion of General Counsel.
- 23.1 Consent of General Counsel (included in opinion of counsel filed as Exhibit 5.1).
- 23.2Consent of BDO USA, LLP.

- 23.3 Consent of Pricewaterhouse Coopers LLP.
- 23.4Consent of PricewaterhouseCoopers Aarata LLC.
- 24.1Power of Attorney to file future amendments (set forth on the signature page of this Registration Statement).

Item 9. Undertakings.

- (a) The undersigned Registrant hereby undertakes:
- (1)To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
- (i)To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
- (ii)To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement.
- (iii)To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

Provided, however, that paragraphs (1)(i) and (1)(ii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Registration Statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3)To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (b)The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c)Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the indemnification provisions summarized in Item 6, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

The Registrant. Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Town of Chelmsford, Commonwealth of Massachusetts, on November 30, 2017.

BROOKS AUTOMATION, INC.

By: /s/ Stephen S. Schwartz

Stephen S. Schwartz

President and Chief Executive Officer

Each person whose signature appears below constitutes and appoints Stephen S. Schwartz, Lindon G. Robertson and Jason W. Joseph, and each of them singly, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them singly, for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8 of Brooks Automation, Inc., and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting to the attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in or about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that the attorneys-in-fact and agents or any of each of them or their substitute may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Stephen S. Schwartz	President, Chief Executive Officer and Director (principal executive officer)	November 30, 2017
Stephen S. Schwartz		
/s/ Lindon G. Robertson	Executive Vice President and Chief Financial Officer (principal financial officer)	November 30, 2017
Lindon G. Robertson		
/s/ David Pietrantoni	Vice President- Finance and Corporate Controller (Principal accounting officer)	November 30, 2017
David Pietrantoni		
/s/ A. Clinton Allen	Director	November 30, 2017
A. Clinton Allen		
/s/ Robyn C. Davis	Director	November 30, 2017
Robyn C. Davis		,
/s/ Joseph R. Martin	Chairman of the Board	November 30, 2017
Joseph R. Martin		30, 2017
/s/ John. K. McGillicuddy	Director	November 30, 2017

John. K. McGillicuddy /s/ Krishna G. Palepu	Director	November 30, 2017
Krishna G. Palepu /s/ Kirk P. Pond	Director	November 30, 2017
Kirk P. Pond /s/ Alfred Woollacott, III	Director	November 30, 2017
Alfred Woollacott, III /s/ Mark S. Wrighton	Director	November 30, 2017
Mark S. Wrighton /s/ Ellen M. Zane	Director	November 30, 2017
Ellen M. Zane		20, 2017