Registration No. 333-

# **UNITED STATES** SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

### FORM S-1

REGISTRATION STATEMENT **Under the Securities Act of 1933** 

### RBC BEARINGS INCORPORATED

(Exact Name of Registrant as Specified in its Charter)

Delaware

(State or other jurisdiction of incorporation or organization) 3562

(Primary Standard Industrial Classification Code number)

95-4372080 (I.R.S. Employer

Identification No.)

One Tribology Center Oxford, CT 06478 Telephone: (203) 267-7001

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

**Corporation Service Company** 2711 Centerville Road Suite 400 Wilmington, DE 19808 Telephone: (800) 927-9800

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copies to:

Joshua N. Korff, Esq. Kirkland & Ellis LLP Citigroup Center 153 East 53rd Street New York, New York 10022-4611 (212) 446-4800

Valerie Ford Jacob, Esq. Stuart H. Gelfond, Esq. Fried, Frank, Harris, Shriver & Jacobson LLP One New York Plaza New York, New York 10004 (212) 859-8000

Approximate date of commencement of proposed sale to the public:

As soon as practicable after this Registration Statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box: o

If this Form is filed to registered additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Form S-1: 333-132480

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering, o

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. o

#### CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee(1)
Common Stock, par value \$0.01 per share(2)	\$17,861,250	\$1,891.89

- Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended. (1)
- Includes 862,500 shares of our Common Stock, par value \$0.01 per share ("Common Stock"), which may be offered pursuant to this registration statement, which represents additional shares to be sold (2) by the Company. Such amount is in addition to the Common Stock previously registered pursuant to Registrant's Registration Statement on Form S-1, File no. 333-132480.

THIS REGISTRATION STATEMENT SHALL BECOME EFFECTIVE UPON FILING WITH THE COMMISSION IN ACCORDANCE WITH RULE 462(b) UNDER THE SECURITIES ACT

OF 1933, AS AMENDED.



### EXPLANATORY NOTE

This Registration Statement is being filed pursuant to Rule 462(b) (this "462(b) Registration Statement") under the Securities Act of 1933, as amended. The contents of the Registration Statement on Form S-1 (File No. 333-132480) filed by RBC Bearings Incorporated with the Securities and Exchange Commission (the "Commission") on March 16, 2006, as amended by Amendment No. 1, dated March 29, 2006 and Amendment No. 2 dated April 7, 2006, including the exhibits thereto, which was declared effective by the Commission on April 11, 2006, is incorporated herein by reference.

This 462(b) Registration Statement is being filed for the purpose of registering 862,500 shares of our common stock, par value \$0.01 per share, which will be offered pursuant to this registration statement. Such shares represent additional shares to be sold by the Company.

We hereby certify to the Securities and Exchange Commission that:

\* We have previously paid the Securities and Exchange Commission amounts sufficient to cover the filing fee set forth on the cover page of this registration statement by a wire transfer to the account of the Securities and Exchange Commission at Mellon Bank.

# **SIGNATURES**

Pursuant to the requirements of the Securities Act, as amended, the registrant has duly caused this 462(b) Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Oxford, Connecticut on April 11, 2006.

By:

# RBC BEARINGS INCORPORATED

/s/ DANIEL A. BERGERON

	Names Daniel A Dangaran		
	Name: Daniel A. Bergeron Title: Chief Financial Officer		
Pursuant to the requirements of the Securities Act, this 462(b) Registrati April 11, 2006.	ion Statement has been signed by the following persons in the capacities indicated on		
Signature	Title		
*	Chief Executive Officer  (Principal Executive Officer and Chairman)		
Dr. Michael J. Hartnett	(Finicipal Executive Officer and Onlinear)		
/s/ DANIEL A. BERGERON	Chief Financial Officer (Principal Financial and Accounting Officer)		
Daniel A. Bergeron			
	Director		
Robert Anderson			
*	Director		
Richard R. Crowell	<del>_</del>		
*	Director		
William P. Killian			
*	Director		
Michael Stone			
*	Director		
Dr. Alan B. Levine			
*	Director		
Dr. Amir Faghri			
*	Director		
Dr. Thomas J. O'Brien			
*By: /s/ DANIEL A. BERGERON			
Daniel A. Bergeron as attorney-in-fact			
	3		

# ITEM 16. EXHIBITS.

The exhibits filed as part of this Registration Statement are as follows:

EXHIBIT NUMBER	DESCRIPTION		
5.1	Opinion of Counsel		
23.1	Consent of Accountants		
23.2	Consent of Kirkland & Ellis LLP*		
24.1	Power of Attorney (incorporated by reference to Registration Statement on Form S-1 (File No. 333-132480) filed March 16, 2006, as amended).		

\* Included in Exhibit 5.1.

QuickLinks

EXPLANATORY NOTE SIGNATURES

#### [LETTERHEAD OF KIRKLAND & ELLIS LLP]

April , 2006

RBC Bearings Incorporated One Tribology Center Oxford, CT 06478

#### Ladies and Gentlemen:

We are acting as special counsel to RBC Bearings Incorporated, a Delaware corporation (the "Company"), in connection with the proposed registration by the Company of shares of its Common Stock, par value \$0.01 per share (the "Common Stock"), including shares of its Common Stock to cover over-allotments, if any, pursuant to a Registration Statement on Form S-1, originally filed with the Securities and Exchange Commission (the "Commission") on March 16, 2006 under the Securities Act of 1933 (the "Act") (such Registration Statement, as amended or supplemented, is hereinafter referred to as the "Registration Statement") and a Registration Statement filed pursuant to Rule 462(b) (the "462(b) Registration Statement"). The shares of Common Stock to be sold by the Company identified in the 462(b) Registration Statement are referred to herein as the "462(b) Shares."

In that connection, we have examined originals, or copies certified or otherwise identified to our satisfaction, of such documents, corporate records and other instruments as we have deemed necessary for the purposes of this opinion, including (i) the Restated Certificate of Incorporation (the "Restated Charter") of the Company in the form previously filed as Exhibit 3.1 to the Registration Statement; (ii) the Bylaws (the "Bylaws") of the Company in the form previously filed as Exhibit 3.2 to the Registration Statement; (iii) the form of purchase agreement attached as Exhibit 1.1 to the Registration Statement (the "Underwriting Agreement"); (iv) resolutions of the Board of Directors of the Company with respect to this issuance and sale of the shares of Common Stock registered pursuant to the Registration Statement and the original issuance of the Shares (the "Resolutions"); and (v) the Registration Statement.

For purposes of this opinion, we have assumed the authenticity of all documents submitted to us as originals, the conformity to the originals of all documents submitted to us as copies and the authenticity of the originals of all documents submitted to us as copies. We have also assumed the legal capacity of all natural persons, the genuineness of the signatures of persons signing all documents in connection with which this opinion is rendered, the authority of such persons signing on behalf of the parties thereto and the due authorization, execution and delivery of all documents by the parties thereto. In rendering the opinion set forth below with respect to the Secondary Shares, we have assumed that the Company has received the entire amount of the consideration contemplated by the Resolutions of the Board of Directors of the Company authorizing the issuance of such shares of Common Stock. We have not independently established or verified any facts relevant to the opinions expressed herein, but have relied upon statements and representations of officers and other representatives of the Company and others as to factual matters.

Based upon and subject to the foregoing qualifications, assumptions and limitations and the further limitations set forth below, when (i) the final Underwriting Agreement is duly executed and delivered by the parties thereto and (ii) the Registration Statement becomes effective under the Act:

1. The 462(b) Shares will be duly authorized and validly issued, fully paid and non-assessable.

Our opinions expressed above are subject to the qualifications that we express no opinion as to the applicability of, compliance with, or effect of any laws except the General Corporation Law of the State of Delaware.

We hereby consent to the filing of this opinion with the Commission as Exhibit 5.1 to the 462(b) Registration Statement. We also consent to the reference to our firm under the heading "Legal Matters" in the Registration Statement. In giving this consent, we do not thereby admit that we are in

the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission.

This opinion is limited to the specific issues addressed herein, and no opinion may be inferred or implied beyond that expressly stated herein.

This opinion is furnished to you in connection with the filing of the 462(b) Registration Statement.

Sincerely,

KIRKLAND & ELLIS LLP

### CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the reference to our firm under the captions "Summary Financial Data", "Selected Consolidated Historical Financial Data" and "Experts" and to the use of our report dated June 10, 2005, except for Note 21 as to which the date is June 13, 2005 and Note 22 as to which the date is August 2, 2005, in the Registration Statement (Form S-1 No. 333-132480) and related Prospectus of RBC Bearings Incorporated, as amended through April 7, 2006 (the "Registration Statement"), and to the incorporation by reference of such Registration Statement in its entirety in the Registration Statement filed pursuant to Rule 462(b) of the Securities Act of 1933 filed on Form S-1 on April 11, 2006.

/s/ Ernst & Young LLP

Hartford, Connecticut April 6, 2006

# QuickLinks

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM