VEECO INSTRUMENTS INC Form S-4/A November 07, 2002

QuickLinks -- Click here to rapidly navigate through this document

As filed with the Securities and Exchange Commission on November 7, 2002.

Registration No. 333-97977

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

AMENDMENT NO. 2 TO

FORM S-4

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

VEECO INSTRUMENTS INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

100 Sunnyside Boulevard Woodbury, NY 11797 (516) 677-0200

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

3559 (Primary Standard Industrial

Classification Code Number)

11-2989601

(I.R.S. Employer Identification Number)

Gregory A. Robbins Vice President and General Counsel 100 Sunnyside Boulevard Woodbury, NY 11797 (516) 677-0200

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

Copies to:

Rory A. Greiss, Esq. Kaye Scholer LLP 425 Park Avenue New York, New York 10022-3598 Telephone: (212) 836-8261 Facsimile: (212) 836-8689 Larry W. Sonsini, Esq. Wilson Sonsini Goodrich & Rosati, Professional Corporation 650 Page Mill Road Palo Alto, CA 94304 Telephone: (650) 493-9300 Facsimile: (650) 493-6811

Approximate date of commencement of proposed sale to the public: At the effective time of the merger of Venice Acquisition Corp., a wholly-owned subsidiary of the Registrant, with and into FEI Company, which shall occur as soon as practicable after the effective date of this Registration Statement and the satisfaction or waiver of all conditions to the closing of such merger.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box. //

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) 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. //

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. //

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933, OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

Subject to Completion, dated November 7, 2002

THE INFORMATION IN THIS JOINT PROXY STATEMENT/PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IT IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

JOINT PROXY STATEMENT/PROSPECTUS

Dear Holders of Veeco and FEI Common Stock:

We are writing to you today about the proposed merger of Veeco Instruments Inc. and FEI Company. We are very excited about the opportunities we envision for the combined company. This merger will create a combined company that is a leader in metrology and process equipment solutions for the semiconductor, data storage, telecommunications/wireless and scientific research markets.

Upon completion of the merger, each outstanding share of FEI common stock will be exchanged for 1.355 shares of Veeco common stock. Veeco expects to issue approximately 44,000,000 shares of its common stock in the merger to FEI shareholders (and up to approximately 10,000,000 Veeco shares which may be issued in respect of FEI's options and other rights and convertible notes). Upon completion of the merger, former FEI shareholders will own approximately 60% of Veeco's outstanding common stock (not including the effect of shares issuable in respect of options, convertible debt and other convertible securities and rights). Veeco common stock is quoted on The Nasdaq National Market under the symbol "VECO". As of November 6, 2002, the closing price of Veeco's common stock on The Nasdaq National Market was \$12.41 per share.

Attached are notices of special meetings of holders of Veeco and FEI common stock and a joint proxy statement/prospectus relating to the merger. The accompanying joint proxy statement/prospectus is the proxy statement for FEI's special meeting of shareholders to vote on the merger and for Veeco's special meeting of stockholders to vote on the issuance of Veeco common stock in the merger, certain amendments to Veeco's Amended and Restated Certificate of Incorporation and an amendment to Veeco's First Amended and Restated Employee Stock Purchase Plan. It also is the prospectus of Veeco related to the issuance of Veeco common stock to the FEI shareholders in the merger.

Completion of the merger requires the FEI shareholders to approve the merger and the Veeco stockholders to approve the issuance of Veeco common stock in the merger and approve the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock so that there will be sufficient authorized shares for issuance in the merger.

The merger and an investment in Veeco common stock involve risks. You should carefully consider the discussion in the section titled "Risk Factors" beginning on page 14 of the joint proxy statement/prospectus.

After careful consideration, the Veeco and FEI boards of directors unanimously recommend the merger. Your vote is important. Please vote "**FOR**" your company's proposal(s) by signing and dating the enclosed proxy card and returning it in the pre-addressed envelope provided. If

you are an FEI shareholder and you do not return your proxy card or vote in person at the FEI meeting of shareholders, the effect will be the same as a vote against the merger. If you are a Veeco stockholder and you do not return your proxy card or vote in person at the Veeco meeting of stockholders in favor of the proposed amendments to Veeco's Amended and Restated Certificate of Incorporation, the effect will be the same as a vote against these proposed amendments.

We appreciate your consideration of these matters.

Edward H. Braun Chairman, Chief Executive Officer and President Veeco Instruments Inc.

Vahé A. Sarkissian Chairman, President and Chief Executive Officer FEI Company

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of this transaction or the securities of Veeco to be issued in the merger, or determined if this joint proxy statement/prospectus is accurate or adequate. Any representation to the contrary is a criminal offense.

This joint proxy statement/prospectus is dated or about , 2002.

, 2002, and was first mailed to holders of Veeco and FEI common stock on

VEECO INSTRUMENTS INC.

100 Sunnyside Boulevard Woodbury, NY 11797 (516) 677-0200

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS To be held on , 2002

We will hold a special meeting of stockholders of Veeco Instruments Inc. at 9:30 a.m. (New York City time), on , , 2002, at the Corporate Center, 395 North Service Road, Melville, New York to consider and vote upon the following proposals:

-		

- To approve the issuance of Veeco common stock, \$0.01 par value per share, under an Agreement and Plan of Merger, dated as of July 11, 2002, among Veeco, FEI Company and Venice Acquisition Corp., a wholly-owned subsidiary of Veeco, under which Venice Acquisition Corp. will be merged into FEI and FEI will become a wholly-owned subsidiary of Veeco;
- To amend Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock, \$0.01 par value per share, from 60,000,000 shares to 175,000,000 shares;
- To amend Veeco's Amended and Restated Certificate of Incorporation to change the name of Veeco Instruments Inc. to Veeco FEI Inc.; 4.
 - To amend Veeco's First Amended and Restated Employee Stock Purchase Plan to increase the number of shares of Veeco common stock issuable under the plan from 250,000 shares to 750,000 shares; and

5.

3.

To transact any other business that may properly come before the special meeting or any adjournment or postponement of the special meeting.

Your Board of Directors unanimously has determined that the issuance of Veeco common stock to FEI shareholders in the Veeco FEI merger is advisable, consistent with and in furtherance of the long-term business strategy of Veeco and fair to, and in the best interests of, Veeco and you, and recommends that you vote to approve the issuance of Veeco common stock in connection with the merger. Your board of directors has also unanimously determined that the proposed amendments to Veeco's Amended and Restated Certificate of Incorporation and the amendment to Veeco's First Amended and Restated Employee Stock Purchase Plan are advisable and recommends that you vote to approve each of these items.

We describe the proposed merger more fully in the accompanying joint proxy statement/prospectus, which we urge you to read carefully.

Only Veeco stockholders of record at the close of business on September 20, 2002 are entitled to notice of, and to vote at, the Veeco special meeting or any adjournment or postponement of the Veeco special meeting.

Your vote is important. To assure that your shares are represented at the Veeco special meeting, you are urged to complete, date and sign the enclosed proxy and promptly mail it in the postage-paid envelope provided, whether or not you plan to attend the Veeco special meeting in person.

You may revoke your proxy in the manner described in the accompanying joint proxy statement/prospectus at any time before it has been voted at the Veeco special meeting. You may vote in person at the Veeco special meeting even if you have returned a proxy.

By Order of the Board of Directors,

John F. Rein, Jr. Executive Vice President, Chief Financial Officer, Treasurer and Secretary

FEI COMPANY

7451 NW Evergreen Parkway Hillsboro, OR 97124 (503) 640-7500

NOTICE OF SPECIAL MEETING OF SHAREHOLDERS To be held on , 2002

We will hold a special meeting of shareholders of FEI Company at a.m. (local time), on , , 2002, at to consider and vote upon the following proposals:

1.

To approve the merger of Venice Acquisition Corp., a wholly-owned subsidiary of Veeco Instruments Inc., with and into FEI pursuant to which FEI will become a wholly-owned subsidiary of Veeco and each outstanding share of FEI common stock will be converted into the right to receive 1.355 shares of Veeco common stock; and

2.

To transact any other business that may properly come before the special meeting or any adjournment or postponement of the special meeting.

Your board of directors unanimously has determined that the merger is advisable, consistent with and in furtherance of the long-term business strategy of FEI and fair to, and in the best interests of, FEI and you, and recommends that you vote to approve the merger.

We describe the merger more fully in the accompanying joint proxy statement/prospectus, which we urge you to read carefully.

Only FEI shareholders of record at the close of business on September 20, 2002 are entitled to notice of, and to vote at, the FEI special meeting or any adjournment or postponement of the special meeting.

Your vote is important. To assure that your shares are represented at the FEI special meeting, you are urged to complete, date and sign the enclosed proxy and promptly mail it in the postage-paid envelope provided, whether or not you plan to attend the FEI special meeting in person.

You may revoke your proxy in the manner described in the accompanying joint proxy statement/prospectus at any time before it has been voted at the FEI special meeting. You may vote in person at the FEI special meeting even if you have returned a proxy.

By Order of the Board of Directors,

Bradley J. Thies Secretary

ADDITIONAL INFORMATION

This joint proxy statement/prospectus incorporates important business and financial information about Veeco and FEI from documents that each company has filed with the Securities and Exchange Commission but that have not been included in or delivered with this joint proxy statement/prospectus. For a listing of documents incorporated by reference into this joint proxy statement/prospectus, please see the section titled "Where You Can Find More Information" beginning on page 134.

You may obtain information relating to Veeco, without charge, upon written or oral request to:

Georgeson Shareholder	or	Veeco Instruments Inc.
Communications Inc.		Investor Relations
17 State Street, 28th Floor		100 Sunnyside Boulevard
New York, NY 10004		Woodbury, NY 11797
(212) 805-7000		(516) 677-0200, Ext. 1403
You may obtain information relating to FEI, without ch	arge, upon written or or	al request to:

Georgeson Shareholder	or	FEI Company
Communications Inc.		Investor Relations
17 State Street, 28th Floor		7451 NW Evergreen Parkway
New York, NY 10004		Hillsboro, OR 97124
(212) 805-7000		(503) 640-7500, Ext. 7527
order for you to receive timely delivery of the documents	before the special	l meetings of Veeco and FEI. Georgeson, Veeco or FE

In order for you to receive timely delivery of the documents before the special meetings of Veeco and FEI, Georgeson, Veeco or FEI should receive your request no later than , 2002.

i

TABLE OF CONTENTS

Ç	UESTIONS AND ANSWERS ABOUT THE MERGER	v
J	OINT PROXY STATEMENT/PROSPECTUS SUMMARY	1
	The Companies	1
	Description of the Transaction	2
	What FEI Securityholders Will Receive in the Merger	2
	Reasons for the Merger	2
	Recommendation of Veeco's Board of Directors	3
	Recommendation of FEI's Board of Directors	3
	Opinion of Veeco's Financial Advisor	3
	Opinion of FEI's Financial Advisor	3
	Voting and Solicitation	4
	Share Ownership of Management	4
	Stockholder Voting Arrangements	4
	Voting Arrangements With Veeco Stockholders	4
	Voting Arrangements With FEI Shareholders	5
	Interests of Certain Persons in the Merger	5
	Board of Directors and Management Following the Merger	5
	Description of Merger Agreement	6
	Terms of Merger	6
	Representations, Warrants and Covenants	6
	Conditions to the Merger	6
	No Solicitation	7
	Termination of Merger Agreement	8
	Expenses and Termination Fees	9
	When will the Merger Occur	10

Investor Agreement with PBE	10
Material U.S. Federal Income Tax Consequences of the Merger	11
No Appraisal/Dissenters' Rights	11
Accounting Treatment of the Merger	11
Restrictions on Selling Veeco Common Stock Received in the Merger	11
Ownership of Veeco FEI Following the Merger	11
Markets and Market Prices	11
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	13
RISK FACTORS	14
SELECTED HISTORICAL AND UNAUDITED PRO FORMA CONSOLIDATED FINANCIAL DATA OF VEECO AND FEI	31
COMPARATIVE PER SHARE DATA (Unaudited)	37
THE VEECO SPECIAL MEETING	38
Date, Time and Place of Veeco Special Meeting	38
Purpose	38
Record Date and Outstanding Shares	38
Voting and Solicitation	38
Recommendation of Veeco's Board of Directors	39
THE FEI SPECIAL MEETING	40
Date, Time and Place of FEI Special Meeting	40
Purpose	40
Record Date and Outstanding Shares	40
Voting and Solicitation	40
Recommendation of FEI's Board of Directors	41

	٠	٠
	1	1

1	THE MERGER	42
	Background of the Merger	42
	Veeco's Reasons for the Merger	46
	FEI's Reasons for the Merger	49
	Recommendation of Veeco's Board of Directors	51
	Recommendation of FEI's Board of Directors	51
	Opinion of Veeco's Financial Advisor	51
	Opinion of FEI's Financial Advisor	57
	Structure of the Merger	67
	Board of Directors and Management of Veeco FEI After the Merger	67
	Interests of Executive Officers and Directors in the Merger	70
	Issuance of Shares in Connection with the Merger	74
	Resale of Veeco Common Stock Issued in the Merger	74
	Listing of Veeco Common Stock Issued in the Merger	74
	Delisting and Deregistration of FEI Common Stock; Cessation of Periodic Reporting	75
	Material U.S. Federal Income Tax Consequences of the Merger	75
	Accounting Treatment of the Merger	76
	Regulatory Filings and Approvals Required to Complete the Merger	77
	Closing and Effectiveness of the Merger	77
]	THE MERGER AGREEMENT	78
	Structure of the Merger	78
	Closing of the Merger	78
	Merger Consideration	78
	Representations and Warranties	79
	Certain Covenants	80
	No Solicitation	85
	Board Recommendations	88

Conditions to the Merger	89
Termination of the Merger Agreement	91
Fees and Expenses	94
Amendment; Waiver	95
OTHER AGREEMENTS	96
Voting Arrangements With Veeco Stockholders	96
Voting Arrangements With FEI Shareholders	96
Investor Agreement With PBE	97
Amendment Agreement among FEI, PBE and Philips	100
RELATIONSHIP WITH PHILIPS	100
AMENDMENT TO VEECO'S AMENDED AND RESTATED CERTIFICATE OF INCORPORATION TO INCREASE THE	
NUMBER OF AUTHORIZED SHARES OF VEECO COMMON STOCK	104
AMENDMENT TO VEECO'S AMENDED AND RESTATED CERTIFICATE OF INCORPORATION TO CHANGE THE NAME	
OF VEECO INSTRUMENTS INC. TO VEECO FEI INC.	107
AMENDMENT TO VEECO'S FIRST AMENDED AND RESTATED EMPLOYEE STOCK PURCHASE PLAN	108
UNAUDITED PRO FORMA CONSOLIDATED FINANCIAL STATEMENTS	112
COMPARISON OF RIGHTS OF VEECO STOCKHOLDERS AND RIGHTS OF FEI SHAREHOLDERS	120
EXPERTS	132
LEGAL MATTERS	132
iii	

DOCUMENTS INCORPO	RATED BY REFERENCE IN THIS JOINT PROXY STATEMENT/PROSPECTUS	133
WHERE YOU CAN FIND	MORE INFORMATION	134
OTHER MATTERS		136
Deadline for Veeco Ann	ual Meeting Proxy Proposals	136
Deadline for FEI Annua	l Meeting Proxy Proposals	136
APPENDICES		
Δ ppendix Δ	Merger Agreement	

Merger Agreement
Voting Agreement among Veeco and the FEI shareholders listed on Schedule A attached thereto and the related
Powers of Attorney and Irrevocable Proxies
Voting Agreement between Veeco and PBE and the related Power of Attorney and Irrevocable Proxy
Voting Agreement among FEI and the Veeco Stockholders listed on Schedule A attached thereto and the related
Powers of Attorney and Irrevocable Proxies
Voting Agreement between FEI and Chorus, L.P. and the related Power of Attorney and Irrevocable Proxy
Opinion of Credit Suisse First Boston Corporation
Opinion of Salomon Smith Barney Inc.
Amendment to Veeco's Amended and Restated Certificate of Incorporation Increasing Number of Authorized
Shares of Veeco Common Stock
Amendment to Veeco's Amended and Restated Certificate of Incorporation Changing Name of Veeco
Instruments Inc. to Veeco FEI Inc.
Investor Agreement among PBE, FEI and Veeco
Amendment Agreement among PBE, Philips and FEI
Amendment No. 1 to Veeco's First Amended and Restated Employee Stock Purchase Plan
iv

QUESTIONS AND ANSWERS

Q:

What transactions are proposed?

A:

Venice Acquisition Corp., a wholly-owned subsidiary of Veeco Instruments Inc., will be merged with and into FEI Company and FEI will become a wholly-owned subsidiary of Veeco after the merger.

For a more complete description of the merger, see the section titled "The Merger" beginning on page 42. Also, the merger agreement is attached to this joint proxy statement/prospectus as <u>Appendix A</u>. You are encouraged to read it carefully.

Q:

Why am I receiving this joint proxy statement/prospectus?

A:

As a Veeco stockholder or an FEI shareholder, you are being asked to vote upon certain measures in order to complete the merger. Also, if you are a Veeco stockholder, you are being asked to approve an amendment to Veeco's First Amended and Restated Employee Stock Purchase Plan.

What will FEI shareholders receive in the merger?

A:

0:

As a result of the merger, FEI shareholders will have the right to receive 1.355 shares of Veeco common stock in exchange for each share of FEI common stock held by them.

Instead of any fractional shares of Veeco common stock, FEI shareholders will receive cash based on the closing market price of Veeco common stock on the day before the merger. For example, if the merger is completed, a holder of 100 shares of FEI common stock would receive 135 shares of Veeco common stock and a check representing the value of the remaining 0.5 shares of Veeco common stock.

As a result of the merger, the former FEI shareholders will be entitled to receive a total of approximately 44,000,000 shares of Veeco common stock (and others may be entitled to receive up to approximately 10,000,000 Veeco shares which may be issued in respect of FEI's options and other rights and convertible notes). The number of shares of Veeco common stock issued to the former FEI shareholders will represent approximately 60% of the Veeco common stock outstanding after the merger (not including the effect of shares of common stock issuable in respect of options, convertible debt and other convertible securities and rights).

For a more complete description of what FEI shareholders will receive in the merger, see the section titled "The Merger Agreement Merger Consideration" beginning on page 78.

Q:

Will Veeco assume FEI's outstanding stock options? Will the FEI convertible notes become convertible into Veeco common stock?

A:

Yes. In connection with the merger, Veeco will assume FEI's outstanding stock options. After the merger, holders of options to purchase FEI common stock will hold options to purchase shares of Veeco common stock and holders of FEI's \$175 million 5.5% Convertible Subordinated Notes due August 15, 2008, which are currently convertible into FEI common stock, will hold notes convertible solely into Veeco common stock. The number of shares issuable and the exercise prices payable upon the exercise of these options, and the number of shares into which the FEI notes are convertible, will be adjusted using the exchange ratio for the merger of 1.355 shares of Veeco common stock for each share of FEI common stock. At June 30, 2002, a total of approximately 10,000,000 Veeco shares would have been issuable under FEI's options and other rights and convertible notes assuming the merger had occurred on that date.

Q:

What is the value of the merger consideration?

A:

The 1.355 exchange ratio is fixed, which means that the number of shares of Veeco common stock to be issued in the merger will not change if the trading prices of the Veeco common stock or the FEI common

v

stock change. The market value of the Veeco common stock that FEI shareholders will receive in the merger, however, will increase or decrease as the price of the Veeco common stock increases or decreases.

Veeco's and FEI's stock prices are volatile. We encourage you to obtain current market quotations of Veeco common stock and FEI common stock prior to voting on the merger and the related proposals.

Are there risks involved in the merger?

Yes. In evaluating the merger, you should carefully consider the factors discussed in the section of this joint proxy statement/prospectus titled "Risk Factors" beginning on page 14.

Q:

A:

Does Veeco's board of directors recommend that Veeco stockholders vote in favor of the issuance of Veeco common stock in the merger, the amendments to Veeco's Amended and Restated Certificate of Incorporation and the amendment to Veeco's First Amended and Restated Employee Stock Purchase Plan?

A:

Yes. After careful consideration, Veeco's board of directors unanimously recommends that Veeco stockholders vote in favor of the issuance of Veeco common stock in the merger and also unanimously recommends that Veeco stockholders vote in favor of the proposed amendments to Veeco's Amended and Restated Certificate of Incorporation and the amendment to Veeco's First Amended and Restated Employee Stock Purchase Plan.

For a complete description of the recommendation of Veeco's board of directors, see the section titled "The Merger Recommendation of Veeco's Board of Directors" on page 51.

Q:

Does FEI's board of directors recommend that FEI shareholders vote in favor of the merger?

A:

Yes. After careful consideration, FEI's board of directors unanimously recommends that FEI's shareholders vote in favor of the merger.

For a more complete description of the recommendation of FEI's board of directors, see the section titled "The Merger Recommendation of FEI's Board of Directors" on page 51.

Q:

What do FEI shareholders and Veeco stockholders need to do now?

A:

Veeco stockholders and FEI shareholders should read carefully this joint proxy statement/prospectus, including all of the Appendices referred or attached to this joint proxy statement/prospectus. They should consider how the transaction will affect them as a Veeco stockholder or FEI shareholder prior to casting their vote. They may also want to review the documents referenced in this joint proxy statement/prospectus under the section titled "Where You Can Find More Information" on page 134.

Q:

What do I do if I want to change my vote?

A:

If you want to change your vote, deliver to Veeco's Secretary (if you are a Veeco stockholder) or to FEI's Secretary (if you are an FEI shareholder) a written notice of revocation of your proxy or a later-dated, signed proxy card before the Veeco special meeting or the FEI special meeting, as applicable, or attend the appropriate special meeting and vote in person.

For a more complete description of how to change your vote, see the sections titled "The Veeco Special Meeting" on page 38 (if you are a Veeco stockholder) and "The FEI Special Meeting" on page 40 (if you are an FEI shareholder).

Q:

Where will the shares of Veeco common stock issued to FEI shareholders trade after the merger?

A:

The Veeco common stock FEI shareholders will receive in the merger will be listed on The Nasdaq National Market under the symbol "VECO."

Q:

What have been the dividend policies of Veeco and FEI?

Neither Veeco nor FEI has paid cash dividends and they do not expect to do so in the foreseeable future.

What vote is needed to effect the merger?

A:

A:

Q:

A majority of the votes cast at Veeco's special meeting (including votes cast by proxy) must vote "**FOR**" the proposed issuance of Veeco common stock in the merger in order for the proposed issuance to be approved by Veeco's stockholders.

The holders of a majority of the outstanding shares of Veeco common stock entitled to vote at the Veeco special meeting also must vote "**FOR**" the proposed amendment to Veeco's Amended and Restated Certificate of Incorporation increasing the number of authorized shares of Veeco's common stock in order for this proposal to be approved by Veeco's stockholders.

Veeco stockholders who owned approximately 12.8% of the outstanding shares of Veeco common stock, as of June 30, 2002, have signed agreements with FEI in which they have agreed to vote "**FOR**" the issuance of Veeco common stock in the merger and "**FOR**" the approval of the amendment to Veeco's Amended and Restated Certificate of Incorporation increasing the number of authorized shares of Veeco's common stock. These Veeco stockholders also have granted irrevocable proxies to FEI to vote their shares in this manner. For more information on these voting arrangements, see the section titled "Other Agreements Voting Arrangements with Veeco Stockholders" on page 96.

The holders of a majority of the shares of FEI common stock entitled to vote must vote "**FOR**" the merger at the FEI special meeting in order for the merger to be approved by FEI's shareholders.

FEI shareholders who owned approximately 27.4% of the outstanding shares of FEI common stock, as of June 30, 2002, have signed agreements with Veeco in which they agreed to vote "**FOR**" the merger. These FEI shareholders also have granted irrevocable proxies to Veeco to vote their shares in this manner. For more information on these voting arrangements, see the section titled "Other Agreements Voting Arrangements with FEI Shareholders" beginning on page 96.

Q:

Will Veeco stockholders or FEI shareholders be entitled to appraisal/dissenters' rights in connection with the merger?

A:

No. Under Delaware and Oregon law, neither Veeco stockholders nor FEI shareholders will be entitled to dissent from the merger or request an appraisal of the value of their shares.

Q:

What vote is needed for the proposed amendment to Veeco's Amended and Restated Certificate of Incorporation to change the name of Veeco Instruments Inc. to Veeco FEI Inc.?

A:

The holders of a majority of the outstanding shares of Veeco common stock entitled to vote at the Veeco special meeting must vote "**FOR**" the proposed amendment to Veeco's Amended and Restated Certificate of Incorporation in order for this proposal to be approved by Veeco's stockholders.

Q:

What vote is needed for the proposed amendment to Veeco's First Amended and Restated Employee Stock Purchase Plan, which would, among other things, increase the number of shares issuable under the existing plan?

A:

A majority of the votes cast at Veeco's special meeting (including votes cast by proxy) must vote "**FOR**" the proposed amendment to Veeco's First Amended and Restated Employee Stock Purchase Plan in order for the proposal to be approved by Veeco's stockholders.

Q:

	What happens if an FEI shareholder votes "AGAINST" the merger but a majority of the FEI shareholders vote"FOR" the merger?
A:	The merger will be approved, and each FEI shareholder will have the right to receive 1.355 shares of Veeco common stock for each share of FEI common stock such shareholder holds when the merger is completed.
Q:	If my shares are held in "street name" by my broker, will my broker vote my shares for me?
A:	Your broker will vote your shares only if you provide instructions on how to vote by following the information provided to you by your broker.
Q:	
×٠	Should FEI shareholders send in their stock certificates now?
A:	
A.	No. After the merger is completed, FEI shareholders will receive a letter of transmittal and other documentation from the exchange agent in the merger, together with written instructions for exchanging their FEI stock certificates for Veeco FEI stock certificates.
Q:	
	When do you expect the merger to be completed?
A:	
	We are working toward completing the merger as quickly as possible and hope to complete the merger shortly after the FEI special meeting and the Veeco special meeting.
Q:	
ν.	Who should I call with questions?
A:	
А.	Veeco stockholders should call either Georgeson Shareholder Communications Inc. at (212) 805-7000 or Veeco Investor Relations at
	(516) 677-0200, ext. 1403 with any questions about the merger.
	EEL shareholders should call either Coorgoson Shareholder Communications Inc. at (212) 805 7000 or EEL Investor Delations at
	FEI shareholders should call either Georgeson Shareholder Communications Inc. at (212) 805-7000 or FEI Investor Relations at (503) 640-7500, ext. 7527 with any questions about the merger.
	You also may obtain additional information about FEI or Veeco from documents filed with the Securities and Exchange Commission
	You also may obtain additional information about FEI or Veeco from documents filed with the Securities and Exchange Commission

viii

by following the instructions in the section titled "Where You Can Find More Information" on page 134.

JOINT PROXY STATEMENT/PROSPECTUS SUMMARY

For your convenience, we have provided a brief summary of certain information contained in this joint proxy statement/prospectus. This summary highlights selected information found in greater detail elsewhere in this joint proxy statement/prospectus. This summary does not contain all of the information that is important to you. To understand the proposed merger fully and for a more complete description of the legal terms of the proposed merger, we urge you to carefully read this entire joint proxy statement/prospectus (including the attached Appendices) and the documents to which we have referred you before you decide how to vote. See the section titled "Where You Can Find More Information" on page 134.

The Companies

Veeco Instruments Inc. 100 Sunnyside Boulevard Woodbury, NY 11797 (516) 677-0200

Veeco designs, manufactures, markets and services a broad line of equipment primarily used by manufacturers in the data storage, telecommunications/wireless, semiconductor and research industries. Veeco's broad line of products featuring leading edge technology allows customers to improve time to market of next generation products. Veeco's metrology, or measurement, equipment is used to provide critical surface measurements on semiconductor devices, thin film magnetic heads and disks used in hard drives and in telecommunications/wireless and research applications. This metrology equipment allows customers to monitor their products throughout the manufacturing process in order to improve yields, reduce costs and improve product quality. Veeco's process equipment products precisely deposit or remove various materials in the manufacturing of advanced thin film magnetic heads for the data storage industry and telecommunications/wireless components. The ability of Veeco's products to precisely deposit thin films, and/or etch sub-micron patterns and make critical surface measurements enables manufacturers to improve yields and quality in the fabrication of advanced microelectronic devices, such as passive and active telecommunications components, wireless devices, thin film magnetic heads and semiconductor devices. Veeco serves its worldwide customers through its global sales and service organization located throughout the United States, Europe, Japan and Asia Pacific.

Venice Acquisition Corp. c/o Veeco Instruments Inc.

Venice Acquisition Corp. is an Oregon corporation and a wholly-owned subsidiary of Veeco. Venice Acquisition Corp. was formed for the purpose of effecting the merger with FEI pursuant to the merger agreement.

FEI Company 7451 NW Evergreen Parkway Hillsboro, OR 97124 (503) 640-7500

FEI is a leading supplier of structural process management solutions to the semiconductor, data storage, structural biology, and industry and institute markets. FEI's range of DualBeam and single column focused ion and electron microscope products enables manufactures and researchers to keep pace with technology shifts and develop next generation technologies and products. FEI's products allow advanced three dimensional metrology, device editing, trimming and structural analysis for management of sub-micron structures, including those found in integrated circuits, high density magnetic storage devices, industrial materials, chemical compounds, biological structures and genomes. FEI sells its products worldwide to a geographically diverse base of customers in the semiconductor, data storage and industry and institute markets.

Philips Business Electronics International B.V. c/o Philips Electronics North America Corporation 1251 Avenue of the Americas New York, NY 10022 (212) 536-0633

Philips Business Electronics International B.V., or PBE, is a wholly-owned subsidiary of Koninklijke Philips Electronics N.V. and is FEI's largest shareholder, holding approximately 25% of FEI's outstanding shares of common stock. In this joint proxy statement/prospectus we use Philips to refer to Koninklijke Philips Electronics N.V. and its affiliates, including PBE, and PBE is used only with respect to the Philips entity that directly holds shares of FEI's common stock.

For more information on FEI's relationship with Philips, see the section titled "Relationship with Philips" on page 100.

Description of the Transaction

Pursuant to an Agreement and Plan of Merger, dated July 11, 2002, among Veeco Instruments Inc., Venice Acquisition Corp. and FEI Company, Venice Acquisition Corp., shall, subject to the terms and satisfaction of the conditions set forth in the merger agreement, be merged with and into FEI, and FEI shall become a wholly-owned subsidiary of Veeco. As a result of the merger, FEI shareholders will have the right to receive 1.355 shares of Veeco common stock for each share of FEI common stock held by them.

What FEI Securityholders Will Receive in the Merger

Holders of Shares of FEI Common Stock

Each FEI shareholder will have the right to receive 1.355 shares of Veeco common stock for each share of FEI common stock they own before the merger. Veeco will not issue fractional shares of Veeco common stock in exchange for shares of FEI common stock in the merger. Instead,

Veeco will issue an appropriate amount of cash in lieu of any fractional shares. This cash amount will be based on the closing trading price of Veeco common stock on the trading day before the closing of the merger.

Holders of FEI Options

Each option to purchase a share of FEI common stock will be assumed by Veeco upon completion of the merger and will be converted into an option to purchase 1.355 shares of Veeco common stock at an exercise price equal to the current exercise price divided by 1.355. Veeco will assume each option to purchase shares of FEI common stock in accordance with the terms of the stock option plan or other arrangement under which the option was issued, but converted as described above into an option to purchase shares of Veeco common stock.

Holders of FEI Convertible Debt

FEI's \$175 million 5.5% Convertible Subordinated Notes due August 15, 2008, shall become convertible solely into such number of shares of Veeco common stock that would have been issued if the FEI notes had been converted into FEI common stock immediately prior to the closing of the merger.

Stock Certificates

FEI shareholders should **NOT** send in their FEI stock certificates until after the merger and until they receive a letter of transmittal and other information and instructions on how to exchange the certificates. For information on exchanging shares of FEI common stock for shares of Veeco common stock after the merger, see the section titled "The Merger Agreement Merger Consideration Exchange of Certificates" on page 78.

Reasons for the Merger

Veeco's and FEI's Reasons for the Merger

The Veeco and FEI boards of directors approved the merger agreement and the transactions contemplated by the merger agreement because they determined that the combined company would have the potential to realize a stronger competitive position and improve long-term operating and financial results. The boards of directors considered many factors that they believed could contribute to the long-term success of the combined company including, among other things, the potential that the combined company would have:

Enhanced ability to provide more comprehensive product solutions and expanded product lines to its customers;

Decreased dependency on major customers;

Increased critical mass and global presence to better serve customers' needs;

Expanded research and development efforts;

Enhanced purchasing power; and

A stronger management team to position the combined company to take advantage of future growth opportunities.

The Veeco and FEI boards of directors considered a number of other factors as well as potential risks and disadvantages of the merger.

You should carefully review the sections titled "The Merger Veeco's Reasons for the Merger," beginning on page 46, and "The Merger FEI's Reasons for the Merger," beginning on page 49, to learn more about Veeco's and FEI's reasons for entering into the merger agreement.

Recommendation of Veeco's Board of Directors

Veeco's board of directors unanimously has approved the merger, the merger agreement and the transactions contemplated thereby and has determined that the merger is advisable, consistent with and in furtherance of the long-term business strategy of Veeco and fair to, and in the best interests of, Veeco and its stockholders, and has determined that the proposed amendments to Veeco's Amended and Restated Certificate of Incorporation and the proposed amendment to Veeco's First Amended and Restated Employee Stock Purchase Plan are advisable. After careful consideration, Veeco's board of directors unanimously recommends that Veeco's stockholders vote "FOR" approval of the issuance of Veeco common stock to FEI shareholders in the merger. Veeco's board of directors also unanimously recommends that Veeco's stockholders vote "FOR" approval of the amendments to Veeco's Amended and Restated Certificate of Incorporation to change the name of Veeco Instruments Inc. to Veeco FEI Inc. and to increase the number of authorized shares of Veeco common stock from 60,000,000 to 175,000,000 shares and "FOR" approval of the proposed amendment to Veeco's First Amended and Restated Employee Stock Purchase Plan to increase the number of shares of Veeco common stock issuable under the plan from 250,000 shares to 750,000 shares.

Recommendation of FEI's Board of Directors

FEI's board of directors unanimously has approved the merger, the merger agreement and the transactions contemplated by the merger agreement and has determined that the merger is advisable, consistent with and in furtherance of the long-term business strategy of FEI and fair to, and in the best interests of, FEI and its shareholders. After careful consideration, FEI's board of directors unanimously recommends that FEI shareholders vote "FOR" the approval of the merger.

Opinion of Veeco's Financial Advisor

In connection with the merger, the Veeco board of directors received a written opinion from Salomon Smith Barney Inc., Veeco's financial advisor, dated as of July 11, 2002, to the effect that as of such date and based on and subject to the matters described in its opinion, the exchange ratio was fair, from a financial point of view, to Veeco. The full text of Salomon Smith Barney's written opinion, dated July 11, 2002, is attached to this joint proxy statement/prospectus as <u>Appendix E</u>. We encourage you to read this opinion carefully in its entirety for a description of the assumptions made, procedures followed, matters considered and limitations on the review undertaken. Salomon Smith Barney's opinion is addressed to the Veeco board of directors and does not constitute a recommendation to any stockholder with respect to any matters relating to the proposed merger. For more information, see the section titled "The Merger Opinion of Veeco's Financial Advisor" beginning on page 51.

Opinion of FEI's Financial Advisor

In deciding to approve the merger, the FEI board of directors considered, among other things, the opinion of Credit Suisse First Boston, FEI's financial advisor, dated as of July 11, 2002, to the effect that as of such date and based upon and subject to the various considerations set forth in the opinion, the exchange ratio in the merger was fair, from a financial point of view, to holders of FEI common stock, other than PBE and its affiliates. The full text of the written opinion of Credit Suisse First Boston, dated as of July 11, 2002, which sets forth assumptions made, matters considered and limitations on the review undertaken in connection with the opinion, is attached as <u>Appendix D</u>. You are urged to read this opinion carefully in its entirety. **Credit Suisse First Boston's opinion is directed to the FEI board of directors, addresses only the fairness, from a financial point of view, of the merger exchange ratio to holders of FEI common stock, other than PBE and its affiliates, and does not constitute a recommendation to**

3

any FEI shareholder as to how such FEI shareholder should vote or act on matter relating to the merger. For more information, see the section titled "The Merger Opinion of FEI's Financial Advisor" beginning on page 57.

Voting and Solicitation

At the Veeco special meeting, each Veeco stockholder of record as of September 20, 2002 is entitled to one vote for each share of Veeco common stock such Veeco stockholder holds. Veeco's bylaws provide that the holders of 50% of all of the Veeco common stock entitled to vote, whether present in person or represented by proxy, shall constitute a quorum for the transaction of business at the Veeco special meeting. Under applicable rules of The Nasdaq National Market, if a quorum is present, the affirmative vote of a majority of the votes cast, whether in person or by proxy, at Veeco's special meeting, is required to approve the issuance of Veeco common stock in the merger. Also, if a quorum is present, the affirmative vote of a majority of the votes cast, whether in person or by proxy, at Veeco's special meeting of stockholders is required to approve the proposed amendment to Veeco's First Amended and Restated Employee Stock Purchase Plan. Under the Delaware General Corporation Law, the affirmative vote of the holders of a majority of the outstanding Veeco common stock entitled to vote, whether in person or by proxy, at Veeco's special meeting is required to approve the amendments to Veeco's Amended and Restated Certificate of Incorporation to change the name of Veeco Instruments Inc. to Veeco FEI Inc. and to increase the number of authorized shares of Veeco's common stock from 60,000,000 to 175,000,000 shares.

FEI

At the FEI special meeting, each FEI shareholder of record as of September 20, 2002 is entitled to one vote for each share of FEI common stock such FEI shareholder holds. FEI's bylaws provide that the holders of a majority of all of the FEI common stock entitled to vote, whether present in person or represented by proxy, shall constitute a quorum for the transaction of business at the FEI special meeting. Under the Oregon Business Corporation Act, the holders of a majority of the shares of FEI common stock entitled to vote must vote "**FOR**" the approval of the merger in order for the merger to be approved by FEI's shareholders.

Share Ownership of Management

Veeco

As of the Veeco record date, the directors and executive officers of Veeco, as a group, held (together with their affiliates) approximately 0.4% of the outstanding shares of Veeco common stock.

FEI

As of the FEI record date, the directors and executive officers of FEI, as a group, held (together with their affiliates) approximately 26.43% of the outstanding shares of FEI common stock.

Stockholder Voting Arrangements

Voting Arrangements With Veeco Stockholders

Certain Veeco stockholders that own an aggregate of approximately 12.8% of the outstanding shares of Veeco common stock, as of June 30, 2002, have entered into voting agreements with FEI. These Veeco stockholders include all of Veeco's directors and executive officers and Chorus, L.P., Veeco's largest stockholder. Pursuant to these voting agreements, they have agreed to vote all of their shares of Veeco common stock:

In favor of the approval of the issuance of Veeco common stock to FEI shareholders in the merger;

In favor of the approval of the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock; and

Against proposals or transactions that would in any manner prevent or nullify

the merger, the merger agreement or any related transactions.

These Veeco stockholders, however, are permitted to vote their shares in favor of a Superior Veeco Proposal or related Veeco Acquisition Transaction, as such terms are defined on page 86. These Veeco stockholders also have granted irrevocable proxies to FEI to allow FEI to vote all of their shares of Veeco common stock in favor of the issuance of Veeco common stock in the merger.

The voting agreements between FEI and these Veeco stockholders, and the related irrevocable proxies granted to FEI by each such Veeco stockholder are included as <u>Appendix C-1</u> and <u>Appendix C-2</u> to this joint proxy statement/prospectus. For more information on these voting arrangements, see the section titled "Other Agreements" Voting Arrangements with Veeco Stockholders" on page 96.

Voting Arrangements With FEI Shareholders

Certain FEI shareholders that own an aggregate of approximately 27.4% of the outstanding shares of FEI common stock, as of June 30, 2002, have entered into voting agreements with Veeco. These FEI shareholders include all of FEI's directors and executive officers and PBE, FEI's largest shareholder. Pursuant to these voting agreements, they have agreed to vote all of their shares of FEI common stock:

In favor of the approval of the merger; and

Against proposals or transactions that would in any manner prevent or nullify the merger or the merger agreement or any related transactions.

These FEI shareholders, however, are permitted to vote their shares in favor of a Superior FEI Proposal or related FEI Acquisition Transaction, as such terms are defined on page 87. These FEI shareholders also have granted irrevocable proxies to Veeco to allow Veeco to vote all of their shares of FEI common stock in favor of the merger.

The voting agreements between Veeco and these FEI shareholders, and the related irrevocable proxies, granted to Veeco by each such FEI shareholder are included as <u>Appendix B-1</u> and <u>Appendix B-2</u> to this joint proxy statement/prospectus. For more information on these voting arrangements, see the section titled "Other Agreements" Voting Arrangements with FEI Shareholders" beginning on page 96.

Interests of Certain Persons in the Merger

In considering the recommendation of the FEI board of directors that FEI shareholders vote to approve the merger and the recommendation of the Veeco board of directors that Veeco stockholders vote to approve the issuance of Veeco common stock in the merger, the proposed amendments to Veeco's Amended and Restated Certificate of Incorporation and the proposed amendment to Veeco's First Amended and Restated Employee Stock Purchase Plan, FEI shareholders and Veeco stockholders should note that certain directors and officers of Veeco and FEI have interests in the merger that are different from, or in addition to, their interests as stockholders/shareholders. These interests relate to the composition of the Veeco FEI board of directors and the management of Veeco FEI following the merger, employment agreements, potential severance payments, potential accelerated vesting of stock options, indemnification rights and certain rights granted to PBE, FEI's largest shareholder, under the investor agreement. For more information, see the section titled "The Merger Interests of Executive Officers and Directors in the Merger" beginning on page 70.

Board of Directors and Management Following the Merger

Veeco and FEI have agreed that immediately following the closing of the merger, the Veeco FEI board of directors will consist of 13 directors. Of these 13 directors:

Seven will be nominated by Veeco from the current members of Veeco's board of directors and will include Edward H. Braun, Veeco's current Chairman, Chief Executive Officer and President;

Five will be nominated by FEI from the current members of FEI's board of

directors and will include Vahé A. Sarkissian, FEI's current Chairman, Chief Executive Officer and President; and

One will be nominated by PBE, FEI's largest shareholder.

Veeco's bylaws provide for a staggered board of directors, composed of three separate classes: Class I, Class II and Class III. Veeco, FEI and PBE have agreed that two Veeco nominees and two FEI nominees will serve as Class III directors for terms expiring at Veeco FEI's 2003 annual meeting of stockholders, two Veeco nominees and two FEI nominees will serve as Class I directors for terms expiring at Veeco FEI's 2004 annual meeting of stockholders and three Veeco nominees, one FEI nominee and one PBE nominee will serve as Class II directors for terms expiring at Veeco FEI's 2004 annual meeting of stockholders and three Veeco nominees, one FEI nominee and one PBE nominee will serve as Class II directors for terms expiring at Veeco FEI's 2005 annual meeting of stockholders. For more information on this arrangement and for more information regarding PBE's right to appoint a person to serve on the Veeco FEI board of directors, see the sections titled "The Merger Interests of Executive Officers and Directors in the Merger" beginning on page 70, "The Merger Board of Directors and Management of Veeco FEI After the Merger" beginning on page 67 and "Other Agreements Investor Agreement with PBE" beginning on page 97.

Description of Merger Agreement

Terms of the Merger

For information on the terms of the merger in addition to the information contained in this summary, see the sections titled "The Merger" beginning on page 42 and "The Merger Agreement" beginning on page 78.

The merger agreement is attached as <u>Appendix A</u> to this joint proxy statement/prospectus and is incorporated by reference herein. Veeco and FEI encourage you to read the merger agreement carefully. It is the legal document governing the merger.

Representations, Warranties and Covenants

In the merger agreement, Veeco and FEI each have made representations and warranties to each other concerning their respective businesses. Each party also has made covenants to the other concerning its activities between the signing of the merger agreement and closing of the merger, the actions it will take to enable the completion of the merger, and other matters.

For more information on these representations, warranties and covenants, see the sections titled "The Merger Agreement Representations and Warranties" and "The Merger Agreement Certain Covenants" on pages 79 and 80, respectively.

Conditions to the Merger

Veeco and Venice Acquisition Corp.

Veeco and Venice Acquisition Corp. will complete the merger only if a number of conditions are satisfied or are waived by Veeco and Venice Acquisition Corp. These include:

FEI's representations and warranties set forth in the merger agreement are true and correct as of the closing date of the merger except where the failure to be true and correct would not, in the aggregate, reasonably be expected to have a Material Adverse Effect, as such term is defined on page 90, on FEI;

FEI performs certain covenants and obligations contained in the merger agreement in all material respects;

FEI's shareholders approve the merger;

Veeco's stockholders approve the issuance of Veeco common stock in the merger and the amendment to Veeco's Amended and Restated Certificate of Incorporation increasing the authorized shares of Veeco's common stock;

There has been no Material Adverse Effect with respect to FEI;

The applicable antitrust waiting periods shall have expired or been terminated;

The Form S-4 registration statement of which this joint proxy statement/prospectus forms a part shall have become effective and shall remain effective;

6

There are no pending legal proceedings by any governmental authority, or injunctions or final judgments entered before any court or governmental authority, that seek to or have the effect of restraining or prohibiting the consummation of the transactions contemplated by the merger agreement;

No governmental authority shall have enacted any rule or regulation making the merger illegal or prohibiting the merger; and

The shares of Veeco common stock to be issued in connection with the merger shall have been approved for listing on The Nasdaq National Market.

For more detailed information concerning the conditions to Veeco's and Venice Acquisition Corp.'s obligations to complete the merger, see the section titled "The Merger Agreement Conditions to the Merger" beginning on page 89.

FEI

FEI will complete the merger only if certain conditions are satisfied or are waived by FEI. These include:

Veeco's and Venice Acquisition Corp.'s representations and warranties set forth in the merger agreement are true and correct as of the closing date of the merger except where the failure to be true and correct would not, in the aggregate, reasonably be expected to have a Material Adverse Effect on Veeco;

Veeco and Venice Acquisition Corp. perform certain covenants and obligations contained in the merger agreement in all material respects;

FEI's shareholders approve the merger;

Veeco's stockholders approve the issuance of Veeco common stock in the merger and the amendment to Veeco's Amended and Restated Certificate of Incorporation increasing the authorized shares of Veeco's common stock;

There has been no Material Adverse Effect with respect to Veeco;

All applicable antitrust waiting periods shall have expired or been terminated;

The Form S-4 registration statement of which this joint proxy statement/prospectus forms a part shall have become effective and shall remain effective;

There are no pending legal proceedings by any governmental authority, or injunctions or final judgments entered before any court or governmental authority, that seek to or have the effect of restraining or prohibiting the consummation of the transactions contemplated by the merger agreement;

No governmental authority shall have enacted any rule or regulation making the merger illegal or prohibiting the merger; and

The shares of Veeco common stock to be issued in connection with the merger shall have been approved for listing on The Nasdaq National Market.

For more detailed information concerning the conditions to FEI's obligation to complete the merger, see the section titled "The Merger Agreement Conditions to the Merger" beginning on page 89.

No Solicitation

Veeco

Veeco has agreed not to directly or indirectly solicit, induce, encourage, initiate or facilitate a Veeco Acquisition Proposal, as such term is defined on page 86. Veeco has also agreed not to engage in negotiations or discussions with respect to any Veeco Acquisition Proposal, provide any information regarding Veeco or its subsidiaries, enter into a contract or letter of intent with respect to a Veeco Acquisition Proposal or approve, recommend or endorse a Veeco Acquisition Proposal. However, if Veeco receives a bona fide, unsolicited, written Veeco Acquisition Proposal that Veeco's board of directors reasonably determines in good faith

7

would be reasonably likely to result in a Superior Veeco Proposal, as such term is defined on page 86, then Veeco may engage in discussions and take other actions to become informed about such Veeco Acquisition Proposal in certain circumstances.

For more information regarding Veeco's agreements with FEI relating to Veeco Acquisition Proposals, see the section titled "The Merger Agreement No Solicitation" beginning on page 85.

FEI

FEI has agreed not to directly or indirectly solicit, induce, encourage, initiate or facilitate an FEI Acquisition Proposal, as such term is defined on page 87. FEI has also agreed not to engage in negotiations or discussions with respect to any FEI Acquisition Proposal, provide any information regarding FEI or its subsidiaries, enter into a contract or letter of intent with respect to an FEI Acquisition Proposal or approve, recommend or endorse an FEI Acquisition Proposal. However, if FEI receives a bona fide, unsolicited, written FEI Acquisition Proposal that FEI's board of directors reasonably determines in good faith would be reasonably likely to result in a Superior FEI Proposal, as that term is defined on page 87, then FEI may engage in discussions and take other actions to become informed about such FEI Acquisition Proposal in certain circumstances.

For more information regarding FEI's agreements with Veeco relating to FEI Acquisition Proposals, see the section titled "The Merger Agreement No Solicitation" beginning on page 85.

Termination of the Merger Agreement

Mutual Termination

Either Veeco or FEI may terminate the merger agreement at any time prior to the closing of the merger if:

Veeco and FEI mutually consent;

The merger is not completed by December 31, 2002, provided, that, in limited circumstances, this date may be extended to January 30, 2003;

A court or other governmental authority issues a final and nonappealable order, decree or ruling or takes other action, having the effect of permanently restraining, enjoining or otherwise prohibiting the merger;

Veeco's stockholders do not approve the issuance of Veeco common stock in the merger and the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock; or

FEI's shareholders do not approve the merger.

Termination by Veeco

Veeco and Venice Acquisition Corp. may terminate the merger agreement if:

At any time prior to the closing of the merger, FEI materially breaches its representations, warranties or covenants under the merger agreement and does not cure such breach within 30 days after notice thereof; or

At any time prior to the approval by Veeco's stockholders of the issuance of Veeco common stock in the merger and the amendment to Veeco's Amended and Restated Certificate of Incorporation increasing the authorized shares of Veeco's common stock, an FEI Triggering Event, as that term is defined on page 92, occurs.

For a more detailed discussion of the circumstances in which the merger agreement can be terminated, see the section titled "The Merger Agreement Termination of the Merger Agreement" beginning on page 91.

Termination by FEI

FEI may terminate the merger agreement if:

At any time prior to the closing of the merger, Veeco materially breaches its representations, warranties or covenants

under the merger agreement and does not cure such breach within 30 days after notice thereof; or

At any time prior to the approval of the merger by FEI's shareholders, a Veeco Triggering Event, as that term is defined on page 93, occurs.

Expenses and Termination Fees

Payment of Expenses

FEI and Veeco will each pay their own fees and expenses in connection with the merger, whether or not the merger is completed, except that FEI and Veeco will share equally filing fees and printing expenses in connection with this joint proxy statement/prospectus and the fees and expenses involved in connection with all required antitrust filings.

Veeco will be required to pay up to \$5 million of FEI's fees and expenses in connection with the merger in the following circumstances:

In the event that the merger agreement is terminated by FEI or Veeco because Veeco stockholders do not approve the issuance of Veeco common stock to FEI shareholders in the merger or the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock at the Veeco special meeting, and at or prior to the time of such termination a Veeco Acquisition Proposal shall have been publicly disclosed, announced, commenced, submitted or made and not subsequently unconditionally withdrawn; or

If Veeco breaches its representations, warranties or covenants in a manner that gives FEI the right to terminate the merger agreement and FEI then terminates the merger agreement.

FEI will be required to pay up to \$5 million of Veeco's fees and expenses in connection with the merger in the following circumstances:

In the event that the merger agreement is terminated by FEI or Veeco because FEI shareholders do not approve the merger at the FEI special meeting, and at or prior to the time of such termination an FEI Acquisition Proposal shall have been publicly disclosed, announced, commenced, submitted or made and not subsequently unconditionally withdrawn; or

If FEI breaches its representations, warranties or covenants in a manner that gives Veeco the right to terminate the merger agreement and Veeco then terminates the merger agreement.

Termination Fees

Veeco has agreed to pay FEI a termination fee of \$30 million in the following circumstances:

Veeco or FEI terminates the merger agreement because Veeco's stockholders do not approve the issuance of Veeco common stock to FEI's shareholders or the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock at the Veeco special meeting at a time when a Veeco Acquisition Proposal has been publicly disclosed, announced, commenced, submitted or made and not unconditionally withdrawn and within 12 months following the termination either (1) a Veeco Acquisition Transaction (as such term is defined on page 86, except that all references to "15%" shall read "40%") is consummated or (2) Veeco enters into a letter

of intent or contract providing for a Veeco Acquisition Transaction and such Veeco Acquisition Transaction is consummated within 24 months following termination of the merger agreement; or

FEI terminates the merger agreement because a Veeco Triggering Event has occurred; *provided, however*, that if the merger agreement is terminated by FEI because of a breach by Veeco of its nonsolicitation obligations, then such termination fee will be payable only if within 12 months following the

9

termination of the merger agreement, either (1) a Veeco Acquisition Transaction (as such term is defined on page 86, except that all references to "15%" therein shall be deemed to read "40%") is consummated or (2) Veeco enters into a letter of intent or contract providing for a Veeco Acquisition Transaction and such Veeco Acquisition Transaction is consummated within 24 months following the termination of the merger agreement.

For more information about expenses and termination fees, see the section titled "The Merger Agreement Fees and Expenses" beginning on page 94.

FEI has agreed to pay Veeco a termination fee of \$30 million in the following circumstances:

Veeco or FEI terminates the merger agreement because FEI's shareholders do not approve the merger at the FEI special meeting at a time when an FEI Acquisition Proposal has been publicly disclosed, announced, commenced, submitted or made and not unconditionally withdrawn and within 12 months following the termination, either (1) an FEI Acquisition Transaction (as such term is defined on page 87, except that all references to "15%" shall read "40%") is consummated or

(2) FEI enters into a letter of intent or contract providing for an FEI Acquisition Transaction and such FEI Acquisition Transaction is consummated within 24 months following termination of the merger agreement; or

Veeco terminates the merger agreement because an FEI Triggering Event has occurred; *provided, however*, that if the merger agreement is terminated by Veeco because of a breach by FEI of its nonsolicitation obligations, then such termination fee will be payable only if within 12 months following the termination of the merger agreement, either (1) an FEI Acquisition Transaction (as such term is defined on page 87, except that all references to "15%" therein shall be deemed to read "40%") is consummated, or (2) FEI enters into a letter of intent or contract providing for an FEI Acquisition Transaction and such FEI Acquisition Transaction is consummated within 24 months following the termination of the merger agreement.

When the Merger Will Occur

Unless Veeco and FEI otherwise agree, the merger will take place no later than the second business day after all of the conditions to closing of the merger contained in the merger agreement have been satisfied or waived. Assuming that both FEI and Veeco satisfy or waive all of the conditions in the merger agreement, we anticipate that the merger will occur shortly after the FEI special meeting and the Veeco special meeting. For more information on regulatory matters and other conditions to the closing of the merger, see the section titled "The Merger Agreement Conditions to the Merger" beginning on page 89.

Investor Agreement with PBE

In connection with the merger, Veeco, FEI and PBE entered into an investor agreement, dated as of July 11, 2002. This investor agreement provides for, among other things, the following:

Registration rights for the shares of Veeco FEI common stock that PBE will receive in the merger;

The right of PBE to designate one director to serve on Veeco FEI's board of directors for a certain period of time;

"Standstill" restrictions prohibiting PBE and its affiliates from acquiring more than a specified percentage of outstanding Veeco FEI common stock or taking certain other actions; and

Veeco's assumption of FEI's obligation to issue, at PBE's option, additional common stock upon the exercise of certain outstanding options to purchase FEI common stock.

The investor agreement is included as Appendix G to this joint proxy statement/prospectus. For a more detailed description of

the terms and conditions of the investor agreement, see the section titled "Other Agreements Investor Agreement with PBE" beginning on page 97.

Material U.S. Federal Income Tax Consequences of the Merger

The receipt of shares of Veeco common stock in the merger generally will be tax-free to FEI shareholders for U.S. federal income tax purposes, except for tax on gain resulting from the receipt of cash in lieu of fractional shares.

Tax matters are very complicated, and the tax consequences of the merger to each FEI shareholder will depend on the facts of such shareholder's own situation. FEI shareholders are urged to consult their own tax advisors as to the specific tax consequences of the

merger to them, including the applicable federal, state, local and foreign tax consequences.

For more information, see the section titled "The Merger Material U.S. Federal Income Tax Consequences of the Merger" beginning on page 75.

No Appraisal/Dissenters' Rights

In connection with the merger, neither Veeco stockholders nor FEI shareholders are entitled to dissent from the merger or request an appraisal of the value of their shares under Delaware or Oregon law. For more information see the section titled "The Merger Agreement Merger Consideration No Appraisal/Dissenters' Rights" on page 78.