FIBERSTARS INC /CA/ Form S-3/A September 22, 2003

QuickLinks -- Click here to rapidly navigate through this document

As filed with the Securities and Exchange Commission on September 22, 2003

Registration No. 333-108083

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Amendment No. 1

to

Form S-3

REGISTRATION STATEMENT Under THE SECURITIES ACT OF 1933

FIBERSTARS, INC.

(Exact name of registrant as specified in its charter)

California (State or other jurisdiction of incorporation or organization) 94-3021850 S. Employer Identification N

(I.R.S. Employer Identification No.)

44529 Nobel Drive Fremont, California 94538 (510) 490-0719

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

DAVID N. RUCKERT

Chief Executive Officer FIBERSTARS, INC. 44529 Nobel Drive Fremont, California 94538 (510) 490-0719

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

RICHARD S. BEBB DAVINA K. KAILE Pillsbury Winthrop LLP 2550 Hanover Street Palo Alto, California 94304

Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. o

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, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. \hat{y}

If this Form is filed to register 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. o

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 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 Amound securities to be registered		Proposed maximum offering price per share(1)	Proposed maximum aggregate offering price(1)	Amount of registration fee(2)
Common Stock, \$.0001 par value(3)	2,341,871 Shares	\$3.80	\$8,899,110	\$720

(1)

Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) based upon the average of the high and low prices of the Company's Common Stock on the Nasdaq National Market on September 17, 2003.

(2)

Includes \$524 previously paid.

(3)

Associated with the Common Stock are Series A Participating Preferred Stock Purchase Rights that will not be exercisable or be evidenced separately from the Common Stock prior to the occurrence of certain events.

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 Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. The selling shareholders 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.

Subject to Completion, Dated September 22, 2003

PROSPECTUS

2,341,871 Shares

FIBERSTARS, INC.

Common Stock

This prospectus relates to the offer and sale from time to time by the selling shareholders identified herein of up to 1,874,409 shares of our outstanding common stock and up to 467,462 shares of common stock issuable upon exercise of warrants. Each warrant entitles the holder to purchase one share of common stock for prices ranging from \$4.30 to \$4.50.

Our common stock is traded on the Nasdaq National Market under the symbol "FBST." The last reported sale price of our common stock on the Nasdaq National Market on September 18, 2003 was \$3.85 per share.

The selling shareholders may offer and sell their shares in transactions on the Nasdaq National Market, in negotiated transactions, or both. These sales may occur at fixed prices that are subject to change, at prices that are determined by prevailing market prices, or at negotiated prices.

The selling shareholders may sell shares to or through broker-dealers, who may receive compensation in the form of discounts, concessions or commissions from the selling shareholders, the purchasers of the shares or both. We will not receive any of the proceeds from the sale of shares by the selling shareholders.

Investing in our common stock involves a high degree of risk. You should carefully read and consider the "Risk Factors" beginning on page 3.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2003

Table of Contents

Fiberstars, Inc. 2 **Risk Factors** 3 Forward Looking Statements 8 Proceeds from the Offering 8 Selling Shareholders 9 Plan of Distribution 12 13 Legal matters Experts 13 Where You Can Find More Information 13 Documents Incorporated by Reference 14 i

FIBERSTARS, INC.

We are a leading supplier of fiber optic lighting. Our products are designed, manufactured and marketed in the commercial lighting, sign and swimming pool and spa markets. Fiber optic lighting provides aesthetic, safety, energy savings and maintenance cost benefits over conventional lighting. We have 38 patents on our technologies for fiber optic lighting. Our customers include fast food restaurant chains, theme parks and casinos, hotels, retail stores, swimming pool builders, spa manufacturers and many others.

Fiberstars was incorporated in California in 1995. Our executive offices are located at 44259 Nobel Drive, Fremont, California 94538 and our telephone number is 510-490-0719. Our website address is located at http://www.fiberstars.com. The information contained in our website does not form any part of this prospectus or the registration statement of which this prospectus is a part.

Page

Fiberstars®, BritePak®, LightlyExpressed®, JazzLight, Fiberstars EFO and Fiberstars Underground Illuminator are our registered trademarks. We also refer to trademarks of other corporations and organizations in this prospectus.

2

You should read carefully this entire prospectus, as well as the documents incorporated by reference in this prospectus, before making an investment decision. In particular, you should carefully consider the risk factors described below, as well as the factors listed in "Forward-Looking Statements."

RISK FACTORS

Our operating results are subject to fluctuations caused by many factors which could result in decreased revenues and a drop in the price of our common stock.

Our operating results can vary significantly depending upon a number of factors. It is difficult to predict the lighting market's acceptance of and demand for our products on a quarterly basis, and the level and timing of orders received can fluctuate substantially. Our sales volumes fluctuate, as does the relative volume of sales of our various products with significantly different product margins. Historically we have shipped a substantial portion of our quarterly sales in the last month of each of the second and fourth quarters of each year. Our product development and marketing expenditures may vary significantly from quarter to quarter and are made well in advance of potential resulting revenue. Significant portions of our expenses are relatively fixed in advance based upon our forecasts of future sales. If sales fall below our expectations in any given quarter, we will not be able to make any significant adjustment in our operating expenses, and our operating results will be adversely affected.

Our sales are dependent upon new construction levels and are subject to seasonal general economic trends.

Sales of our pool and spa lighting products, which currently are available only with newly constructed pools and spas, depend substantially upon the level of new construction of pools. Sales of commercial lighting products also depend significantly upon the level of new building construction and renovation. Construction levels are affected by housing market trends, interest rates and the weather. Because of the seasonality of construction, our sales of swimming pool and commercial lighting products, and thus our overall revenues and income, have tended to be significantly lower in the first and third quarter of each year. Various economic and other trends may alter these seasonal trends from year to year, and we cannot predict the extent to which these seasonal trends will continue. Recent and continued weakness in the U.S. economy may continue to affect construction and our business. Additionally, some business segments, such as themed entertainment, remain weak as a result of reduced air travel following the September 11, 2001 tragedy and the outbreak and spread of Severe Acute Respiratory Syndrome, or SARS. Themed entertainment is a key source of revenues for our commercial lighting segment and continued softness in this industry will potentially have a material negative effect on our future commercial lighting sales.

If we are not able to timely and successfully develop, manufacture, market and sell our new products, our operating results will decline.

We expect to introduce additional new products in the remainder of 2003 and 2004 in the Pool and Spa Lighting and Commercial Lighting markets. Delivery of these products may cause us to incur additional unexpected research and development expenses. We could have difficulties manufacturing these new products as a result of our inexperience with them or the costs could be higher than expected. Any delays in the introduction of these new products could result in lost sales, loss of customer confidence and loss of market share. Also, it is difficult to predict whether the market will accept these new products. If any of these new products fails to meet expectations, our operating results will be adversely affected.

We operate in markets that are intensely and increasingly competitive.

Competition is increasing in a number of our markets. A number of companies offer directly competitive products, including fiber optic lighting products for downlighting, display case and water

lighting, and neon and other lighted signs. We are also experiencing competition from light emitting diode, LED, products in water lighting and in neon and other lighted signs. Our competitors include some very large and well-established companies such as Philips, Schott, 3M, Bridgestone, Pentair, Mitsubishi and Osram/Siemens. All of these companies have substantially greater financial, technical and marketing

resources than we do. We may not be able to adequately respond to fluctuations in competitor pricing. We anticipate that any future growth in fiber optic lighting will be accompanied by continuing increases in competition, which could adversely affect our operating results if we cannot compete effectively.

We rely on intellectual property and other proprietary information that may not be protected and that may be expensive to protect.

We currently hold 38 patents. There can be no assurance, however, that our issued patents are valid or that any patents applied for will be issued. We have a policy of seeking to protect our intellectual property through, among other things, the prosecution of patents with respect to certain of our technologies. There are many issued patents and pending patent applications in the field of fiber optic technology, and certain of our competitors hold and have applied for patents related to fiber optic lighting. Although, to date, we have not been involved in litigation challenging our intellectual property rights or asserting intellectual property rights of others, we have in the past received communications from third parties asserting rights in our patents or that our technology infringes intellectual property rights held by such third parties. Based on information currently available to us, we do not believe that any such claims involving our technology or patents are meritorious. However, we may be required to engage in litigation to protect our patent rights or to defend against the claims of others. In the event of litigation to determine the validity of any third party claims or claims by us against such third party, such litigation, whether or not determined in our favor, could result in significant expense and divert the efforts of our proprietary rights, subject us to significant liabilities, require us to seek licenses from third parties or prevent us from licensing our technology or selling our products, any of which could harm our business.

We rely on distributors for a significant portion of our sales, and terms and conditions of sales are subject to change with very little notice.

Most of our products are sold through distributors, and we do not have long-term contracts with our distributors. Some of these distributors are quite large, particularly in the pool products market, such as South Central Pools ("SCP"). If these distributors, particularly SCP, significantly change their terms with us or change their historical pattern of ordering products from us, there could be a significant impact on our revenues and profits.

The loss of a key sales representative could have a negative impact on our net sales and operating results.

We rely on key sales representatives for a significant portion of our sales. These sales representatives have unique relationships with our customers and would be difficult to replace. The loss of a key sales representative could interfere with our ability to maintain customer relationships and result in declines in our net sales and operating results.

We depend on key executives and employees in a competitive market for skilled personnel, and the loss of the services of any of our key executives or employees could materially affect our business.

Our future success will depend to a large extent on the continued contributions of key executives and employees, many of whom would be difficult to replace. In particular, we believe John Davenport, our Chief Operating Officer and Chief Technology Officer, is critical to our business. Our future success will also depend on our ability to attract and retain qualified technical, sales, marketing and management personnel, for whom competition is intense. The loss of or failure to attract and retain

Λ
-

any of our key executives and employees could delay product development cycles, disrupt our operations or otherwise harm our business or results of operations.

We depend on a limited number of suppliers from whom we do not have a guarantee to adequate supplies, increasing the risk that loss of or problems with a single supplier could result in impaired margins, reduced production volumes, strained customer relations and loss of business.

Mitsubishi is the sole supplier of our fiber other than the large core fiber we manufacture based on technology acquired in the Unison transaction. We also rely on a sole source for certain lamps, reflectors, thin film coating, remote control devices and power supplies. The loss of one or more of our suppliers could result in delays in the shipment of products, additional expense associated with redesigning products, impaired margins, reduced production volumes, strained customer relations and loss of business or otherwise harm our results of operations.

We depend on Advanced Lighting Technology, Inc., or ADLT, for a number of components for our products. ADLT has recently filed for Chapter 11 bankruptcy which could result in an interruption of supply and increased costs for these components.

ADLT supplies us with certain lamps, power supplies, reflectors and coatings. We have identified alternative suppliers for these components, but there could be an interruption of supply and increased costs if a transition to a new supplier were required. We could lose current or prospective customers as a result of supply interruptions. Increased costs would negatively impact our gross profit margins and results of operations.

We are becoming increasingly dependent on foreign sources of supply for many of our components and in some cases complete assemblies, which due to distance or political events may result in a lack of timely deliveries.

In order to save costs, we are continually seeking off-shore supply of components and assemblies. This results in longer lead times for deliveries which can mean less responsiveness to sudden changes in market demand for the products involved. Some of the countries where components are sourced may be less stable politically than the U.S., and this could lead to an interruption of the delivery of key components. Delays in the delivery of key components could result in delays in product shipments, additional expenses associated with locating alternative component sources or redesigning products, impaired margins, reduced production volumes, strained customer relations and loss of customers, any of which could harm our results of operations.

We are subject to manufacturing risks, including fluctuations in the costs of purchased components and raw materials due to market demand, shortages and other factors.

We depend on various components and raw materials for use in the manufacturing of our products. We may not be able to successfully manage price fluctuations due to market demand or shortages. In addition to risks associated with sole and foreign suppliers, significant increases in the costs of or sustained interruptions in our receipt of adequate amounts of necessary components and raw materials could harm our margins, result in manufacturing halts and negatively impact our results of operations.

Because we depend on a limited number of significant customers for our net sales, the loss of a significant customer, reduction in order size, or the effects of volume discounts granted to significant customers from time to time could harm our operating results.

Our business is currently dependent on a limited number of significant customers, and we anticipate that we will continue to rely on a limited number of customers. SCP is our largest pool customer, a cessation or substantial decrease in the volume of purchases by SCP could reduce availability of our products to end users and could, in turn, have a material adverse effect on our net sales and results of operations. The loss of any significant customer would harm our net sales and operating results. Customer purchase deferrals, cancellations, reduced order volumes or non-renewals from any particular customer could cause our quarterly operating results to fluctuate or decline and harm our business. In addition, volume discounts granted to significant customers from time to time could lead to reduced profit margins, and negatively impact our operating results.

5

Our components and products could have design, defects or compatibility issues, which could be costly to correct and could result in the rejection of our products and damage to our reputation, as well as lost sales, diverted development resources and increased warranty reserves and manufacturing costs.

We cannot assure you that we will not experience defects or compatibility issues in components or products in the future. Errors or defects in our products may arise in the future, and, if significant or perceived to be significant, could result in rejection of our products, product returns or recalls, damage to our reputation, lost revenues, diverted development resources and increased customer service and support costs and warranty claims. Errors or defects in our products could also result in product liability claims. We estimate warranty and other returns and accrue reserves for such costs at the time of sale. Any estimates, reserves or accruals may be insufficient to cover sharp increases in product returns, and such returns may harm our operating results. In addition, customers may require design changes in our products in order to suit their needs. Losses, delays or damage to our reputation due to design or defect issues would likely harm our business, financial condition and results of operations.

If we are unable to predict market demand for our products and focus our inventories and development efforts to meet market demand, we could lose sales opportunities and experience a decline in sales or we may have to reduce prices and write down excess inventory.

In order to arrange for the manufacture of sufficient quantities of products and avoid excess inventory we need to accurately predict market demand for each of our products. Significant unanticipated fluctuations in demand could cause problems in our operations. We may not be able to accurately predict market demand in order to properly allocate our manufacturing and distribution resources among our products. As a result we may experience declines in sales and lose, or fail to gain, market share. In addition, if we have excess inventory, we may have to reduce our prices and write down inventory, which could in turn result in lower gross profit margins and harm our results of operations.

We depend on collaboration with third parties, who are not subject to material contractual commitments, to augment our research and development efforts.

Our research and development efforts include collaboration with third parties. Many of these third parties are not bound by any material contractual commitment leaving them free to end their collaborative efforts at will. Loss of these collaborative efforts would adversely affect our research and development efforts and could have a negative effect on our competitive position in the market. In addition, arrangements for joint development efforts may require us to make royalty payments on sales of resultant products or enter into licensing agreements for the technology developed, which could increase our costs and negatively impact our results of operations.

We have experienced negative cash flow from operations and may continue to do so in the future. We may need to raise additional capital in the near future, but our ability to do so may be limited.

While we have historically been able to fund cash needs from operations, from bank lines of credit or from capital markets, due to competitive, economic or other factors there can be no assurance that we will continue to be able to do so. If our capital resources are insufficient to satisfy our liquidity requirements and overall business objectives we may seek to sell additional equity securities or obtain debt financing. Adverse business conditions due to a continued weak economic environment or a weak market for our products have led to and may lead to continued negative cash flow from operations, which may require us to raise additional financing, including equity financing. Any equity financing may be dilutive to shareholders, and debt financing, if available, will increase expenses and may involve restrictive covenants. We may be required to raise additional capital, at times and in amounts, which are uncertain, especially under the current capital market conditions. Under these circumstances, if we are unable to acquire additional capital or are required to raise it on terms that are less satisfactory than desired, it may have a material adverse effect on our financial condition, which could require us to

6

curtail our operations significantly, sell significant assets, seek arrangements with strategic partners or other parties that may require us to relinquish significant rights to products, technologies or markets, or explore other strategic alternatives including a merger or sale of our company.

Our stock price has been and will likely continue to be volatile and you may be unable to resell your shares at or above the price you paid.

Our stock price has been and is likely to be highly volatile, particularly due to our relatively limited trading volume. Our stock price could fluctuate significantly due to a number of factors, including:

variations in our anticipated or actual operating results;

sales of substantial amounts of our stock;

dilution as a result of additional equity financing by us;

announcements about us or about our competitors, including technological innovation or new products or services;

conditions in the fiber optic lighting industry;

governmental regulation and legislation; and

changes in securities analysts' estimates of our performance, or our failure to meet analysts' expectations.

Many of these factors are beyond our control.

In addition, the stock markets in general, and the Nasdaq National Market and the market for fiber optic lighting and technology companies in particular, have experienced extreme price and volume fluctuations recently. These fluctuations often have been unrelated or disproportionate to the operating performance of these companies. These broad market and industry factors may adversely affect the market price of our common stock, regardless of our actual operating performance.

In the past, companies that have experienced volatility in the market prices of their stock have been the object of securities class action litigation. If we were the object of securities class action litigation, it could result in substantial costs and a diversion of management's attention and resources.

7

FORWARD-LOOKING STATEMENTS

When used in this prospectus, the words "expects," "anticipates," "estimates," "plans," and similar expressions are intended to identify forward-looking statements. These are statements that relate to future periods and include statements as to the adequacy of our capital resources, product introductions and developments in competition. Forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those projected. These risks and uncertainties include, but are not limited to, the impact of alternative technological advancements and competition, our ability to develop and manufacture current and future products, the risks set forth in our most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q and the risks set forth above under the caption "Risk Factors."

Except for our obligations under the federal securities laws, we expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

PROCEEDS FROM THE OFFERING

We will not receive any proceeds from the sale of the shares by the selling shareholders. However, we will receive the exercise price if the selling shareholders exercise their warrants. We cannot be certain as to when and if all of these warrants will be exercised and as to the amount of the proceeds we will actually receive from exercises because of the net issuance exercise provisions of the warrants. All proceeds from the sale of the shares will be for the account of the selling shareholders, as described below. See "Selling Shareholders" and "Plan of Distribution."

8

SELLING SHAREHOLDERS

In June 2003, we entered into a securities purchase agreement with certain of the selling shareholders pursuant to which we sold 1,755,302 of the shares covered by this prospectus (including 405,069 of the shares issuable upon exercise of the warrants). Under that agreement, we agreed to register the shares under the Securities Act for resale to the public and, subject to the terms of the agreement, to cause this registration statement to be kept effective until the earlier of the following:

August 15, 2008, plus a number of days equal to the number of days, if any, the registration statement is suspended or not effective beyond an aggregate of sixty days in any twelve month period,

such time as all shares and shares issuable upon exercise of the warrants purchased by the investors pursuant to the securities purchase agreement, as the case may be, may immediately be sold during any 90 day period pursuant to Rule 144 under the Securities Act, or

the closing of an acquisition of the shares in exchange for publicly traded stock of another entity.

In March 2002, we entered into a common stock and warrant purchase agreement with certain of the selling shareholders. In addition, in June 1990 we entered into a registration rights agreement with certain of the other selling shareholders. Pursuant to these agreements, we agreed to register certain shares under the Securities Act for resale to the public and, subject to the terms of the agreements, cause a registration statement to be kept effective for a period of 120 days or until the holders of such securities complete the distribution described in the registration statement, whichever occurs first.

The following table sets forth information regarding the beneficial ownership of common stock by each of the selling shareholders and the shares being offered by the selling shareholders (including the shares issuable upon exercise of the warrants). Information with respect to beneficial ownership is based upon information furnished by the selling shareholders. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons and entities named in the tables below have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws. Information with respect to shares owned beneficially after the offering assumes the sale of all of the shares offered and no other purchases or sales of common stock.

	Shares Benefi Prior to (•	Shares Beneficially Owned Number of		•
Selling Shareholders	Number	Percent(1)	Shares Being Offered	Number	Percent(1)
Accelera Ventures, LTD(2)	30,000	*	30,000	0	*
American High Growth Equities					
Retirement Trust(3)	100,000	1.7%	100,000	0	*
Dorado Fund LLC(4)	9,100	*	9,100	0	*
F. Van Kasper(5)	98,200	1.6%	40,000	19,200	*
F. Van Kasper IRA Wells Fargo Bank(5)	56,200	*	39,000	17,200	*
Michael Feuer(6)	124,780	2.1%	72,599	52,181	*
J. James Finnerty, IRA	20,000	*	20,000	0	*
John B. Stuppin & Jane K. Stuppin					
Revocable Living Trust, UTD 3/11/91(7)	167,076	2.8%	48,359	118,717	1.8%
Jupiter Partners(8)	119,600	2.0%	119,600	0	*
Lauro F. Guerra	60,000	1.0%	60,000	0	*
Robert W. Ledoux	7,800	*	7,800	0	*
Lung Pho Enterprises LTD(9)	1,693	*	1,693	0	*
William E. Mercer, Jr.	90,000	1.5%	18,000	72,000	1.1%
Michael and Sheila Alessandro	100,000	1.7%	100,000	0	*
MicroCapital Fund LP(10)	120,000	2.0%	120,000	0	*

9

Nan Family Limited Partnership(11)	116,585	1.9%	116,585	0	*
Omicron Master Trust(12)	80,001	1.3%	80,001	0	*
Polaris Partners(13)	39,999	*	39,999	0	*
Robert F. Tufts and Joyce A. Tufts,					
Trustees U/A, Dated September 18, 1985(14)	25,750	*	20,000	5,750	*
Roy and Yvonee Polatchek, JTWROS	100,000	1.7%	100,000	0	*
Scott DeSano	60,000	*	60,000	0	*
TCMP3 Partners(15)	59,800	*	59,800	0	*
The Doshay Family Trust of 1999	400,000	6.5%	400,000	0	*
The Jeffrey and Margery Lewis					
Family Trust, DTD 10/4/89(16)	100,000	1.7%	100,000	0	*
Trigran Investments L.P.(17)	772,183	12.7%	320,001	452,182	7.0%
Robert Trobec	20,000	*	20,000	0	*
Turning Point Capital LP(18)	80,001	1.3%	80,001	0	*
Valor Capital(19)	130,000	2.2%	130,000	0	*
Walter L. Skaggs and Diane Skaggs	8,000	*	8,000	0	*
Philip E. Wolfson(20)	148,791	2.5%	21,333	127,458	2.0%

Represents less than 1%.

There were 6,021,390 shares of common stock outstanding as of September 15, 2003. In computing the number of shares of common stock beneficially owned by a person or entity and the percentage ownership of that person or entity prior to the offering, we deemed outstanding shares of common stock subject to options and shares of common stock subject to warrants held by that person that are currently exercisable or exercisable within 60 days of September 15, 2003. We did not deem these shares outstanding, however, for purposes of computing the percentage ownership of any other person. However, in computing the number of shares of common stock beneficially owned by a person or entity and the percentage of ownership of that person or entity after the offering, we have assumed that 6,488,852 shares of common stock will be outstanding upon completion of the offering assuming exercise of all outstanding warrants held by selling shareholders listed above.

(2) Dennis Kam, Chief Executive Officer of Accelera Ventures, LTD, has sole voting and investment power with respect to the shares beneficially owned by Accelera Ventures, LTD.

As trustee, Brad Butler has sole voting and investment power with respect to the shares beneficially owned.

(4) David Lee, Managing Member of Dorado Fund LLC, has sole voting and investment power with respect to the shares beneficially owned by Dorado Fund LLC.

(5)

(3)

(1)

Mr. Van Kasper has sole voting and investment power with respect to the shares beneficially owned by the F. Van Kasper IRA Wells Fargo Bank, and therefore the IRA's shares and warrants have been included in the shares beneficially owned, but not the shares being offered, by Mr. Van Kasper.

(6)

Mr. Feuer served as a director of Fiberstars from 1991 to 2003. The shares beneficially owned by Mr. Feuer include options to purchase 46,302 shares of common stock that are exercisable within 60 days of September 15, 2003.

(7)

Each of Mr. and Mrs. Stuppin has sole voting and investment power with respect to the shares beneficially owned by the trust. Mr. Stuppin has served as chairman of the board of directors of Fiberstars since 1995.

(8)

John M. Bryan, Managing General Partner of Jupiter Partners, has sole voting and investment power with respect to the shares beneficially owned by Jupiter Partners.

(9)

Tan Chuen Kin Joseph, Director of Lung Pho Enterprises LTD, has sole voting and investment power with respect to the shares beneficially owned by Lung Pho Enterprises LTD.

10

(10)

Ian Ellis, Managing Director of MicroCapital LLC, the General Partner of MicroCapital Fund LP, has sole voting and investment power with respect to the shares beneficially owned by MicroCapital Fund LP.

(11)

Shiao-Mei Nan has sole voting and investment power with respect to the shares beneficially owned by the Nan Family Limited Partnership.

(12)

Omicron Capital, L.P., a Delaware limited partnership ("Omicron Capital"), serves as investment manager to Omicron Master Trust, a trust formed under the laws of Bermuda ("Omicron"), Omicron Capital, Inc., a Delaware corporation ("OCI"), serves as general partner of Omicron Capital, and Winchester Global Trust Company Limited ("Winchester") serves as the trustee of Omicron. By reason of such relationships, Omicron Capital and OCI may be deemed to share dispositive power over the shares of our common stock owned by Omicron, and Winchester may be deemed to share voting and dispositive power over the shares of our common stock

owned by Omicron. Omicron Capital, OCI and Winchester disclaim beneficial ownership of such shares of our common stock. Omicron Capital has delegated authority from the board of directors of Winchester regarding the portfolio management decisions with respect to the shares of common stock owned by Omicron and, as of April 21, 2003, Mr. Olivier H. Morali and Mr. Bruce T. Bernstein, officers of OCI, have delegated authority from the board of directors of OCI regarding the portfolio management decisions of Omicron Capital with respect to the shares of common stock owned by Omicron. By reason of such delegated authority, Messrs. Morali and Bernstein may be deemed to share dispositive power over the shares of our common stock owned by Omicron. Messrs. Morali and Bernstein disclaim beneficial ownership of such shares of our common stock and neither of such persons has any legal right to maintain such delegated authority. No other person has sole or shared voting or dispositive power with respect to the shares of our common stock being offered by Omicron, as those terms are used for purposes under Regulation 13D-G of the Securities Exchange Act of 1934, as amended. Omicron and Winchester are not "affiliates" of one another, as that term is used for purposes of the Securities Exchange Act of 1934, as amended, or of any other person named in this prospectus as a selling stockholder. No person or "group" (as that term is used in Section 13(d) of the Securities Exchange Act of 1934, as amended, or the SEC's Regulation 13D-G) controls Omicron and Winchester.

(13)

Peter Melhado, General Partner of Polaris Partners, has sole voting and investment power with respect to the shares beneficially owned by Polaris Partners.

(14)

As trustees, Mr. and Mrs. Tufts have shared voting and investment power with respect to the shares beneficially owned.

(15)

Walter Schenker and Steven Slawson, principals of TCMP3 Capital LLC, the general partner of TCMP3 Partners, have shared voting and investment power with respect to the shares beneficially owned by TCMP3 Partners.

(16)

As trustees, each of Jeffrey Lewis and Margery Lewis has sole voting and dispositive power with respect to the shares beneficially owned.

(17)

Doug Granat and Lawrence Obermann have shared voting and investment power with respect to the shares beneficially owned by Trigran Investments L.P. The shares beneficially owned include 21,000 shares held by a limited partnership of which Trigran Investments L.P. is a limited partner and manager.

(18)

Each of Michael Allesandro and Hugh Burke, Managing Directors of Allesandro, Burke & Co. LLC, the general partner of Turning Point Capital LP, has sole voting and investment power with respect to the shares beneficially owned by Turning Point Capital LP.

(19)

John M. Kratky, III, Managing Member of Kratky Management, LLC, the general partner of Valor Capital, has sole voting and investment power with respect to the shares beneficially owned by Valor Capital.

(20)

11

PLAN OF DISTRIBUTION

The selling shareholders may offer and sell the shares covered by this prospectus at various times. As used in this prospectus, the term "selling shareholders" includes donees, pledgees, transferees or other successors-in-interest selling shares received from a named selling shareholder as a gift, partnership distribution, or other non-sale-related transfer after the date of this prospectus. The selling shareholders will act independently of Fiberstars in making decisions with respect to the timing, manner and size of each sale. The shares may be sold by or for the account of the selling shareholders in transactions on the Nasdaq National Market, the over-the-counter market, or otherwise. These sales may be made at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market prices, or at negotiated prices. The shares may be sold by means of one or more of the following methods:

Mr. Wolfson has served as a director of Fiberstars since 1994. The shares beneficially owned by Mr. Wolfson include options to purchase 57,083 shares of common stock that are exercisable within 60 days of September 15, 2003.

a block trade in which the broker-dealer so engaged will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;

purchases by a broker-dealer as principal and resale by that broker-dealer for its account pursuant to this prospectus;

ordinary brokerage transactions in which the broker solicits purchasers;

in connection with short sales, in which the shares are redelivered to close out short positions;

in connection with the loan or pledge of shares registered hereunder to a broker-dealer, and the sale of the shares so loaned or the sale of the shares so pledged upon a default;

in connection with the writing of non-traded and exchange-traded call options, in hedge transactions and in settlement of other transactions in standardized or over-the-counter options;

privately negotiated transactions; or

in a combination of any of the above methods.

If required, we will distribute a supplement to this prospectus to describe material changes in the terms of the offering.

The selling shareholders may sell the shares described in this prospectus directly to purchasers or to or through broker-dealers, which may act as agents or principals. In effecting sales, broker-dealers engaged by the selling shareholders may arrange for other broker-dealers to participate in resales. Broker-dealers may receive compensation in the form of discounts, concessions or commissions from the selling shareholders or from the purchasers of the shares or from both. This compensation may exceed customary commissions. The selling shareholders may also transfer, devise or gift these shares by other means not described in this prospectus.

The selling shareholders also may resell all or a portion of the shares covered by this prospectus that qualify for sale under Rule 144 of the Securities Act in open market transactions in reliance upon Rule 144 under the Securities Act. The selling shareholders have not advised us of any specific plans for the distribution of the shares covered by this prospectus. When and if we are notified by the selling shareholders that any material arrangement has been entered into with a broker-dealer or underwriter for the sale of a material portion of the shares covered by this prospectus, we will file a prospectus supplement or post-effective amendment to the registration statement with the SEC. This supplement or amendment will include the following information:

the name of the participating selling shareholder(s) and broker-dealer(s) or underwriters;

the number of shares involved;

the price(s) at which the shares were sold;

12

the commissions paid or discounts or concessions allowed by the selling shareholders to the broker-dealers or underwriters, if any; and

other information material to the transaction.

The selling shareholders and any broker-dealers, agents or underwriters that participate with the selling shareholders in the distribution of the shares may be deemed to be "underwriters" within the meaning of the Securities Act of 1933. Any commissions paid or any discounts or concessions allowed to any of those persons, and any profits received on the resale of the shares purchased by them, may be deemed to be underwriting commissions or discounts under the Securities Act. Because selling shareholders may be deemed to be "underwriters," the selling shareholders will be subject to the prospectus delivery requirements of the Securities Act. We have advised the selling shareholders that the anti-manipulation rules promulgated under the Exchange Act, including Regulation M, may apply to sales of the shares offered by the selling shareholders.

Selling shareholders may agree to indemnify any agent, broker or dealer that participates in sales of common stock against liabilities arising under the Securities Act from sales of common stock.

We will not receive any proceeds from the sale of the shares by the selling shareholders. However, we will receive the exercise price if the selling stockholders exercise their warrants. We cannot be certain as to when and if all of these warrants will be exercised and as to the amount of the proceeds we will actually receive from exercises because of the cashless exercise provisions of the warrants.

Fiberstars has agreed to bear all expenses of registration of the shares other than fees and expenses, if any, of counsel or other advisors to the selling shareholders. Any commissions, discounts, concessions or other fees, if any, payable to broker-dealers in connection with any sale of the shares will be borne by the selling shareholders selling those shares.

There can be no assurances that the selling shareholders will sell all or any of the shares of common stock offered under this prospectus.

LEGAL MATTERS

The validity of the common stock offered by this prospectus is being passed upon for Fiberstars by Pillsbury Winthrop LLP, Palo Alto, California.

EXPERTS

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2002 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements, and other information with the Securities and Exchange Commission. You may read and copy any materials we file with the Commission at the Commission's public reference room at 450 Fifth Street, N.W., Room 1024, Washington, D.C. Please call the Commission at 1-800-SEC-0330 for more information on its public reference room. The Commission also maintains an Internet website at http://www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the Commission.

We have filed with the Commission a registration statement, which contains this prospectus, on Form S-3 under the Securities Act of 1933. The registration statement relates to the common stock offered by the selling shareholders. This prospectus does not contain all of the information set forth in

13

the registration statement and the exhibits and schedules to the registration statement. Please refer to the registration statement and its exhibits and schedules for further information with respect to us and the common stock. Statements contained in this prospectus as to the contents of any contract or other document are not necessarily complete and, in each instance, we refer you to the copy of that contract or document filed as an exhibit to the registration statement. You may read and obtain a copy of the registration statement and its exhibits and schedules from the Commission, as described in the preceding paragraph.

DOCUMENTS INCORPORATED BY REFERENCE

The Commission allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and later information that we file with the Commission will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings we make with the Commission under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 until this offering is completed. The documents we incorporate by reference are:

Our Annual Report on Form 10-K for the year ended December 31, 2002.

Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2003 and June 30, 2003.

Our current reports on Form 8-K filed with the Commission on June 19, 2003 and July 31, 2003.

The description of our Series A Participating Preferred Stock contained in our registration statement on Form 8-A/A filed under the Exchange Act on July 15, 2003.

The description of our common stock contained in our registration statement on Form 8-A filed under the Exchange Act on May 19, 1994.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address and number:

44259 Nobel Drive, Fremont, CA 94538 (510) 490-0719

We have not authorized anyone to provide you with information or to represent anything not contained in this prospectus. You must not rely on any unauthorized information or representations. The selling shareholders are offering to sell, and seeking offers to buy, only the shares of Fiberstars common stock covered by this prospectus, and only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date, regardless of the time of delivery of this prospectus or of any sale of the shares.

14

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth the various expenses payable by the Registrant in connection with the sale and distribution of the securities being registered hereby. Normal commission expenses and brokerage fees are payable individually by the selling shareholders. All amounts are estimated except the SEC registration fee.

		Amount	
	—		
SEC registration fee	\$	720	
Accounting fees and expenses	\$	30,000	
Legal fees and expenses	\$	25,000	
Miscellaneous fees and expenses	\$	280	
Total	\$	56,000	

Amount

Item 15. Indemnification of Directors and Officers

Section 317 of the California Corporations Code provides for the indemnification of officer, directors, and other corporate agents in terms sufficiently broad to indemnify such persons under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act. Article IV of the Registrant's Amended and Restated Articles of Incorporation (Exhibit 3.1 to the Registrant's Form 10-K for the fiscal year ended December 31, 2001 (File No. 000-24230)) and Article VI of the Registrant's Bylaws (Exhibit 3.(ii) to the Registrant's Form 10-Q for the quarterly period ended March 31, 2003 (File No. 000-24230)) provide for indemnification of the Registrant's directors, officers, employees and other agents to the extent and under the circumstances permitted by the California Corporations Code. The Registrant has also entered into agreements with its directors and officers that will require the Registrant, to among other things, indemnify them against certain liabilities that may arise by reason of their status or service as directors or officers to the fullest extent not prohibited by law.

Item 16. Exhibits

Exhibit Number	Description of Document
3(i).1	Amended and Restated Articles of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2001).
3(i).2	Certificate of Determination of Series A Participating Preferred Stock of the Registrant (incorporated by reference to Exhibit 3(i) to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2001).
3(ii)	Bylaws of the Registrant, as amended (incorporated by reference to Exhibit 3(ii) to the Registrant's Quarterly Report of Form 10-Q for the quarterly period ended March 31, 2003).
4.1	Form of warrant issued to the Underwriters in the Company's initial public offering (incorporated by reference to Exhibit 1.1 to the Registrant's Registration Statement on Form SB-2 (Commission File No. 33-79116-LA) which became effective on August 17, 1994).

II-1

- 4.2 Rights Agreement dated as of September 20, 2001 between the Registrant and Mellon Investor Services (incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-A filed with the SEC on September 21, 2001).
- 4.3 Amendment No. 1 to Rights Agreement dated as of March 26, 2002, between Fiberstars, Inc. and Mellon Investor Services, LLC as rights agent (incorporated by reference to Exhibit 4.2 to the Registrant's Amendment No. 1 to Form 8-A filed with the SEC on April 17, 2002).
- 4.2 Amendment No. 2 to the Rights Agreement dated as of June 17, 2003, between Fiberstars, Inc. and Mellon Investor Services, LLC as rights agent (incorporated by reference to Exhibit 4.1 to the Registrant's Amendment No. 2 to Form 8-A filed with the SEC on July 15, 2003).
- 4.4 Form of Warrant for the purchase of shares of Common Stock (incorporated by reference to Exhibit 4.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2002).
- 4.5 Form of Warrant for the purchase of shares of Common Stock (incorporated by reference to Exhibit 99.3 to the Registrant's current report on Form 8-K filed with the SEC on June 19, 2003).
- 5.1 Opinion of Pillsbury Winthrop LLP.
- 23.1 Consent of Independent Accountants.

- 23.2 Consent of Pillsbury Winthrop LLP (included in its opinion filed as Exhibit 5.1).
- 24.1* Power of Attorney.
- 24.2 Power of Attorney of Theodore L. Eliot, Jr.

Previously filed.

Item 17. Undertakings

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities 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 Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to the Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(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,

II-2

individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement; and

(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 (i) and (ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, 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.

(4) That, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act that is incorporated by reference in the 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.

II-3

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3, and has duly caused this Amendment to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Fremont, State of California, on September 19, 2003.

FIBERSTARS, INC.

By

/s/ ROBERT A. CONNORS

Robert A. Connors

Chief Financial Officer

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

Name	Title	Date
/s/ DAVID N. RUCKERT	Chief Executive Officer, President and Director	September 19, 2003
David N. Ruckert /s/ ROBERT A. CONNORS	Chief Financial Officer	September 19, 2003
Robert A. Connors /s/ WAYNE HELLMAN*	Director	September 19, 2003
Wayne R. Hellman		
/s/ SABU KRISHNAN* Sabu Krishnan	Director	September 19, 2003
/s/ JOHN B. STUPPIN* John B. Stuppin	Director	September 19, 2003
/s/ DAVID N. TRAVERSI* David N. Traversi	Director	September 19, 2003
/s/ PHILIP WOLFSON*	Director	September 19, 2003
Philip Wolfson	Director	

Jeffrey Brite

	Name		Title	Date
	/s/ THEODORE L. ELIOT, JR.	Director		September 18, 2003
	Theodore L. Eliot, Jr.			
*By:	/s/ ROBERT A. CONNORS			
	Robert A. Connors Attorney-in-fact	• II-4		

EXHIBIT INDEX

Exhibit Number	Description of Document			
3(i).1	Amended and Restated Articles of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2001).			
3(i).2	Certificate of Determination of Series A Participating Preferred Stock of the Registrant (incorporated by reference to Exhibit 3(i) to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2001).			
3(ii)	Bylaws of the Registrant, as amended (incorporated by reference to Exhibit 3(ii) to the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2003).			
4.1	Form of warrant issued to the Underwriters in the Company's initial public offering (incorporated by reference to Exhibit 1.1 to the Registrant's Registration Statement on Form SB-2 (Commission File No. 33-79116-LA) which became effective on August 17, 1994).			
4.2	Rights Agreement dated as of September 20, 2001 between the Registrant and Mellon Investor Services (incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-A filed with the SEC on September 21, 2001).			
4.3	Amendment No. 1 to Rights Agreement dated as of March 26, 2002, between Fiberstars, Inc. and Mellon Investor Services, LLC as rights agent (incorporated by reference to Exhibit 4.2 to the Registrant's Amendment No. 1 to Form 8-A filed with the SEC on April 17, 2002).			
4.2	Amendment No. 2 to the Rights Agreement dated as of June 17, 2003, between Fiberstars, Inc. and Mellon Investor Services, LLC as rights agent (incorporated by reference to Exhibit 4.1 to the Registrant's Amendment No. 2 to Form 8-A filed with the SEC on July 15, 2003).			
4.4	Form of Warrant for the purchase of shares of Common Stock (incorporated by reference to Exhibit 4.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2002).			
4.5	Form of Warrant for the purchase of shares of Common Stock (incorporated by reference to Exhibit 99.3 to the Registrant's current report on Form 8-K filed with the SEC on June 19, 2003).			
5.1	Opinion of Pillsbury Winthrop LLP.			
23.1	Consent of Independent Accountants.			
23.2	Consent of Pillsbury Winthrop LLP (included in its opinion filed as Exhibit 5.1).			
24.1*	Power of Attorney.			
24.2	Power of Attorney of Theodore L. Eliot, Jr.			

Previously filed.

QuickLinks

*

Table of ContentsFIBERSTARS, INC.RISK FACTORSFORWARD-LOOKING STATEMENTSPROCEEDS FROM THE OFFERINGSELLING SHAREHOLDERSPLAN OF DISTRIBUTIONLEGAL MATTERSEXPERTSWHERE YOU CAN FIND MORE INFORMATIONDOCUMENTS INCORPORATED BY REFERENCEPART II INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution Item 15. Indemnification of Directors and Officers Item 16. Exhibits Item 17. Undertakings SIGNATURES EXHIBIT INDEX