
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K/A

Amendment No. 1

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2003

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number 0-15930

SOUTHWALL TECHNOLOGIES INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

94-2551470

(I.R.S. Employer
Identification Number)

3975 East Bayshore Road, Palo Alto, California

(Address of principal executive offices)

94303

(Zip Code)

Registrant's telephone number, including area code: (650) 962-9111

Securities registered pursuant to Section 12(b) of the Act: **None**

Securities registered pursuant to Section 12(g) of the Act:

Common Stock

(Title of Class)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K/A or any amendment to this Form 10-K/A.

The approximate aggregate market value of the Common Stock held by non-affiliates of the registrant on March 1, 2004 (based upon the closing sales price of the Common Stock on the Nasdaq National Market System on such date) was \$17,718,176. For purposes of this disclosure, Common Stock held by stockholders whose ownership exceeds five percent of the Common Stock outstanding as of March 1, 2004, and Common Stock held by officers and directors of the registrant has been excluded in that such persons may be deemed to be "affiliates" as that term is defined in the rules and regulations promulgated under the Securities Act of 1933, as amended. This determination is not necessarily conclusive.

Indicate by check mark whether the registrant is an accelerated filer (as defined by Rule 12b-2 of the Securities Exchange Act of 1934). Yes No

The number of shares of the registrant's Common Stock outstanding on March 1, 2004 was 12,548,192.

Explanatory Note

This Form 10-K/A of Southwall Technologies Inc. (the “Company”) is being filed for the purpose of correcting certain typographical and other errors in the Form 10-K for the fiscal year ended December 31, 2003, which was filed by the Company on April 14, 2004.

Corrections were made to the following sections:

- The table of contractual obligations on page 33;
- The table of deferred tax (liabilities) assets on page 59;
- The disclosure of future minimum payments under operating leases on page 63;
- The disclosure of maximum cash amounts payable under severance agreements on page 79; and
- Item 15 – the Financial Statement Schedule on page 83.

Corrections of classification errors were made to the following sections:

- Table of Selected Cash Flow Data on page 16;
- Table of Consolidated Statements of Cash Flows on page 47;
- Table showing inventory levels as of December 31, 2002 and 2003 on page 65;
- Table showing property, plant and equipment as of December 31, 2002 and 2003 on page 66; and
- Table showing principal accountant fees and services on page 82.

SOUTHWALL TECHNOLOGIES INC.
2003 ANNUAL REPORT ON FORM 10-K/A
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As used in this report, the terms "we," "us," "our," "Southwall" and the "Company" mean Southwall Technologies Inc. and its subsidiaries, unless the context indicates another meaning.

XIR, XUV, Triangle Design, Superglass, Heat Mirror, California Series, Solis, ETCH-A-FLEX, and Southwall are registered trademarks of Southwall. V-KOOL is a registered trademark of Globamatrix Holdings Pte. Ltd. All other trade names and trademarks referred to in this prospectus are the property of their respective owners.

This report contains forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995, that are subject to a number of risks and uncertainties. All statements other than statements of historical facts are forward-looking statements. These statements are identified by terminology such as "may," "will," "could," "should," "expects," "plans," "intends," "seeks," "anticipates," "believes," "estimates," "potential," or "continue," or the negative of such terms or other comparable terminology, although not all forward-looking statements contain these identifying words. Forward-looking statements are only predictions and include, without limitation, statements relating to:

- our ability to remain as a going concern;
- our strategy, future operations and financial plans, including, without limitation, our plans to install and commercially produce products on new machines;
- the continued trading of our common stock on the pink sheets;
- future applications of thin film coating technologies and our development of new products;
- our expectations with respect to future grants, investment allowances and bank guarantees from the Saxony government;
- our projected need for additional borrowings and future liquidity;
- statements about the future size of markets;
- pending and threatened litigation and its outcome;
- our competition; and
- our projected capital expenditures.

You should not place undue reliance on our forward-looking statements. Actual events or results may differ materially. In evaluating these statements, you should specifically consider various factors, including the risks outlined under "Risk Factors" below. These factors may cause our actual results to differ materially from any forward-looking statement. Although we believe the expectations reflected in our forward-looking statements are reasonable as of the date they are being made, we cannot guarantee our future results, levels of activity, performance, or achievements. Moreover, neither we nor any other person assumes responsibility for the future accuracy and completeness of these forward-looking statements.

PART I

ITEM 1. BUSINESS

Overview

We are a global developer, manufacturer and marketer of thin film coatings for the automotive glass, electronic display and architectural markets. We have developed a variety of products that control sunlight in automotive glass, reduce light reflection, reduce potentially harmful electromagnetic emissions and improve image quality in electronic display products, and conserve energy in architectural products. Our products consist of transparent solar-control films for automotive glass; anti-reflective films for computer screens, reflective films for back-lighting in liquid crystal displays; transparent conductive films for use in touch screen and plasma panel displays; energy control films for architectural glass; and various other coatings. Based upon our production capacity, we believe we are one of the world's largest producers of sputter-coated, flexible thin film products.

We maintain a website with the address of www.southwall.com. We are not including the information contained on our website as a part of, or incorporating it by reference into, this Annual Report on Form 10-K/A. We make available free of charge through our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, and amendments to these reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the Securities and Exchange Commission. In addition, we intend to disclose on our website any amendments to, or waivers from, our code of business conduct and ethics that are required to be publicly disclosed pursuant to the rules of the Securities and Exchange Commission.

Industry Background

Large area, single layer, thin film coatings were developed in the early 1960s using vacuum evaporation, a less precise precursor to sputter coating. As a result of technological developments in the early 1970s, multi-layer coatings for large substrates became possible. Sputtering based on these developments is used today in a large number of applications in which high quality, uniform coatings need to be deposited on large surfaces or on many smaller surfaces simultaneously. Examples of sputter coating include the deposition of various metal and metal oxide layers on wafers in the semiconductor and hard disk industries, and optical coatings on transparent surfaces in the automotive glass, electronic display, and architectural markets.

Thin film coatings are used in a wide variety of applications to control the transmission and reflection of light and the flow of energy. Thin film coatings can modify the transmission, reflection and absorption of both visible and non-visible light, such as infrared and ultra-violet light, to enhance the performance and characteristics of the material.

Thin film process technologies

The three most common methods for commercially producing thin film coatings on glass and flexible substrates are:

- *Wet coating.* The wet coating process generally involves depositing a thin layer of material onto glass by a spin coating technique or onto a flexible substrate, or film, by a number of different methods. In the case of spin coating, which is sometimes used for computer display tubes, or CDTs, a small amount of liquid is placed at the center of a spinning CDT, forcing the liquid from the center towards the outside edge. Once a uniform thin layer of liquid is thus applied, the layer is bake-dried at a moderate temperature. In the case of film coating, a thin layer of liquid material is applied to the surface of plastic film and then dried by means of thermal or direct radiation. This process is generally less expensive than sputter-coating, but generally yields coatings with lower quality optical and mechanical characteristics.
- *Direct coating onto glass substrates.* Direct coating onto glass can be accomplished by sputtering and by pyrolytic means. Direct-to-glass sputtering is a mature, well-known process for applying thin film coatings to glass. This technology is commonly used to manufacture products that conserve energy in buildings. Pyrolytic coatings are formed directly on the glass as it is produced on a float line. The pyrolytic process uses the heat of the molten glass to make a single layer, metal oxide coating from a solution sprayed onto the glass. Because this technique produces only single layer coatings, the performance is limited.
- *Sputter coating onto flexible film substrates.* The sputter coating process, which is the process we primarily employ, deposits a thin layer of materials, generally metals and metal oxides, onto the surface of a flexible substrate, usually polyester. The substrate can then be either laminated in or applied to glass or suspended between panes of glass. The substrate can be applied to both flat glass and curved glass, such as is used in automotive applications.

The thin film coating process begins with a clear base substrate that is typically glass or a flexible polyester film. When using a flexible film, a hard coat is sometimes applied to prevent undesired interactions between the materials to be deposited and the base substrate, as well as improve the mechanical properties of the coating. Various materials are then deposited in very thin layers on the substrate. The process of building up the various layers results in a "stack." The stack consists of layers of materials that produce the desired optical and performance effects. In some applications, primarily with flexible films, adhesive or protective layers may be applied to the substrate to improve the subsequent application of the product onto a rigid substrate, such as glass.

Our Markets

The primary markets for thin film coated substrates that we manufacture are the automotive glass, electronic display and the architectural glass markets. Advances in manufacturing processes coupled with improved thin film deposition technologies in the automotive glass and electronic display markets are reducing production costs, allowing thin film coated substrates to more cost-effectively address these markets.

Automotive glass products

The thin film coated substrates we sell in this market reflect infrared heat. These coatings allow carmakers to use more glass and increase energy efficiency by reducing the demand on a vehicle's air conditioning system, as well as improving thermal comfort in the vehicle. Thin film coated substrates in this market are sold primarily to original equipment manufacturers, or OEMs, that produce glass for sale to European manufacturers of new cars and trucks for worldwide distribution. These substrates are also sold to independent glass manufacturers as part of an aftermarket for replacement automobile glass. In addition, thin film coated substrates for retrofit application to the inside surface of a vehicle window are sold through resellers who install the film.

Nearly all automotive glass in the world uses some degree of tint or coloration to absorb light and solar energy, thus reducing solar transmission into the vehicle. This tint is usually created through the mixing of inorganic metals and metal oxides into the glass as the glass is produced. The cost of adding these materials is very low, but the solar control benefit is limited by the fact that solar energy is absorbed in the glass, causing the glass to heat up which eventually increases the temperature of the inside of the automobile. We began production for this market in 1996.

Electronic display products

The thin film coated products we sell in this market primarily reduce glare caused by reflection from glass surfaces, improve contrast and image quality, block electromagnetic emissions and infrared energy, and enhance the light output of certain displays. Our thin film coated substrates are used in cathode ray tubes, or CRTs, liquid crystal and plasma displays, and in applications such as touch screens. In 2002, we started shipping production quantities and sizes of a new anti-reflective film specifically designed for the liquid crystal display, or "LCD", market. In 2003, we started shipments of coatings for the plasma display panel, or "PDP", market. Thin film coated substrates in this market are generally sold to OEMs, which apply the film to flat screens.

We began commercial production for the electronic display market in 1996.

Architectural products

The thin film coated substrates we sell in this market are primarily used to control the transmission of heat through window glass, as well as to limit ultra-violet light damage. Window glass is a poor thermal barrier. The primary source of heat build-up and loss in buildings is through the glass windows. Our original business, in which we began volume production in 1979, focused on this market.

Technology

In a sputtering process, a solid target and a substrate are placed in a vacuum chamber. By adding a small amount of process gas, typically argon, to the chamber and negatively charging the target, the process gas is ionized and a plasma discharge is formed. The positively charged gas ions strike the solid target with enough force to eject atoms from its surface. The ejected target atoms condense on the substrate and a thin film coating is constructed atom by atom. By placing a magnet behind the target, the electrons in the ionized plasma are confined to a specific region on the target enhancing the creation of ionized gas atoms and increasing the efficiency of the target atom ejection process. By using different targets as the substrate moves through the vacuum chamber, we can create a multi-layered coating, or stack.

If the process gas is inert, such as argon, the coating will have the same composition as the target material. As an example, many of our coatings have a layer of silver in the stack. However, by adding a reactive gas such as oxygen or nitrogen to the process, it is possible to create metal oxide or metal nitride coatings from a metal target.

The advantages of our sputtering process include the high density of the formed coatings and the high degree of uniformity control that we can achieve.

In addition to the process techniques described above, we have developed the ability to deposit wet chemistry based coatings under atmospheric conditions. In this technique, the active component of the thin film is in a solution and is applied to the substrate by rotating cylinder. After applying the wet film, the substrate is heated, evaporating the solvent and leaving a thin film of the active component behind. This technology is used to apply an anti-smudge coating on top of our sputtered anti-reflective films. The function of the anti-smudge coating is to make the final product more resistant to fingerprints and to make it easier to clean. Other coatings can be applied through this technique as well. This technology was utilized at our Tempe manufacturing facility during 2003 and will be moved to our Palo Alto manufacturing facility in the first half of 2004.

We rely extensively upon trade secrets and know-how to develop and maintain our competitive position. We have 30 patents and six patent applications pending in the United States and 63 patents and more than 40 patent applications pending outside the United States that cover materials, processes, products and production equipment. Of our existing patents, six U.S. patents and four international patents will expire in the next three years. We also seek to avoid disclosure of our know-how and trade secrets through a number of means, including requiring those persons with access to our proprietary information to execute nondisclosure agreements with us. We consider our proprietary technology, as well as its patent protection, to be an important factor in our business.

Products

The following table describes the markets into which we sell our products, the applications of our products, our product families, key features of our various products and representative customers.

MARKET	APPLICATION	FILM PRODUCTS	KEY FEATURES	REPRESENTATIVE CUSTOMERS
<i>Automotive glass</i>	Windscreens, side windows, and back windows	Infrared reflective (XIR 70 and XIR 75)	<ul style="list-style-type: none"> Transmits 70% or 75% visible light Reflects 85% of infrared heat energy 	<ul style="list-style-type: none"> Saint Gobain Sekurit Pilkington PLC Asahi
	After-market installation	Solis/V-KOOL Huper Optik	<ul style="list-style-type: none"> Transmits 70% or 75% visible light Reflects 85% of infrared heat energy 	<ul style="list-style-type: none"> Globamatrix Huper Optik
<i>Electronic display</i>	Flat screen CRT monitors and TVs	Anti-reflective absorbing (ARA)	<ul style="list-style-type: none"> Pigmented film 8X reduction in light reflection High picture quality 	<ul style="list-style-type: none"> Mitsubishi Electric Polar Vision
	Liquid crystal display (LCD) screens LCD reflector for lighting sources	Anti-reflective clear (ARC) Silver reflecting	<ul style="list-style-type: none"> Clear anti-reflective product 95% Reflecting Light-weight mirror 	<ul style="list-style-type: none"> Polar Vision Mitsui Chemicals Marubeni
	Plasma display panels (PDP)	Infrared reflective (TCP) Anti-reflective clear (ARC)	<ul style="list-style-type: none"> Clear and Conductive Clear infrared blocking 	<ul style="list-style-type: none"> Mitsui Chemicals
<i>Architectural</i>	New and retrofit residential and commercial windows and doors	Suspended Heat Mirror	<ul style="list-style-type: none"> Cool in summer Warm in winter UV blocking Noise reducing 	<ul style="list-style-type: none"> Kensington Hankuk Edge Seal
	Commercial buildings	Laminated (XIR72)	<ul style="list-style-type: none"> Infrared reflecting UV blocking Cool in summer Noise reducing 	<ul style="list-style-type: none"> Gulf Glass Industries Cristales Curvados
	After-market installation	Solis/V-KOOL	<ul style="list-style-type: none"> Infrared reflecting 	<ul style="list-style-type: none"> Globamatrix

Automotive glass products

Direct-to-glass sputtering for automotive windshields has not historically been well developed because of the need to bend the glass before it can be coated and then applied to an automobile. Coating flat glass and then bending it to match complex automobile designs is less difficult. Therefore, coating flat glass and then bending it is the method currently used by most glass producers. Sputter coated flexible substrates that we produce can be applied to windshields with different curvatures and incorporated into most in-line windshield production process used by glass companies today. Our net revenues from sales of automotive glass products were \$37.4 million in 2001, \$25.7 million in 2002 and \$23.2 million in 2003.

Infrared reflective films. Our XIR coated solar-control films are transparent, sputter-coated, polyester films used in laminated glass for automobiles. The films have a patented, transparent solar-control coating on one side and a proprietary adhesion-promotion layer on the other.

Applied solar-control films. Our Solis/V-KOOL and Huper Optik solar-control films for aftermarket installation for automotive glass utilizes our XIR and other patented coating technologies. The product is applied to existing windows and has a protective hard coat over the patented, transparent solar-control coating on one side and the adhesion layer on the other. Solis/V-KOOL and Huper Optik are sold through a worldwide distribution network of companies owned by or affiliated with Globamatrix.

Electronic display products

Our sputter coated substrates offer the high optical quality necessary for higher resolution electronic displays. Our substrates can be easily cut into different shapes and sizes, providing increased flexibility for our customers. In addition, our products can effectively reduce undesirable or potentially harmful emissions without affecting the resolution of the display. Our net revenues from sales of electronic display products were \$29.7 million in 2001, \$26.6 million in 2002 and \$19.0 million in 2003.

Anti-reflective films. Our anti-reflective films minimize reflection of visible light while allowing high picture quality. Our anti-reflective absorbing, or ARA, films are pigmented and used in flat screen CRT monitors. Our anti-reflective clear, or ARC, films are clear and used in LCD and plasma display panel screens.

Silver reflecting films. Our silver reflecting film is a mirror-like product used as a reflector in LCD backlit screens and for mirrors in rear-projection TV systems..

Transparent conductors. XIR films are used in the plasma display panel markets to block near-infrared and electromagnetic radiation from the display. Our ALTAIR-M films are used in products such as touch panels, liquid crystal displays and electroluminescent displays where the circuit or conductive material must not obscure the screen. ALTAIR films are also used in electromagnetic interference shielding, infrared rejection and electrostatic discharge packaging applications.

Architectural products Windows containing our Heat Mirror product have approximately two to five times the insulating capacity of conventional double-pane windows. They also provide high levels of solar shading while transmitting a high percentage of visible light. In addition, our products also offer ultra-violet protection and reduce noise and condensation build-up. Architectural glass manufacturers are looking for ways to improve insulation without adding numerous panes of glass that are impractical to lift and cannot be supported by a structure's frame. This drives the need for thin film inside the glass that is a high performance insulator at a fraction of the weight of the glass. Our net revenues from sales of architectural products were \$15.9 million in 2001, \$16.5 million in 2002 and \$11.1 million in 2003.

Suspended Heat Mirror films. Our Heat Mirror films provide a variety of shading and insulating properties as well as ultra-violet damage protection. Windows are the primary areas of heat loss in winter and a major source of heat gain in summer. Heat Mirror films, which are sold in rolls to window manufacturers, are suspended in the airspace between sealed double-pane residential and commercial windows. We have developed proprietary film-mounting technology, which we license to window fabricators. There are a total of 63 Heat Mirror licenses in approximately 20 countries. We currently offer 12 different Heat Mirror films for architectural applications.

Laminated films. Our thin film coated flexible substrates are laminated between panes of glass and perform similarly to our XIR solar control films for automobiles. This film is currently sold primarily to fabricators of laminated window glass for large commercial building applications such as airports, office buildings, and museums. We have sold approximately 20 licenses for this architectural film product in approximately 15 countries.

Applied solar-control films. Our coatings for architectural applications are Solis/V-KOOL (XIR) and Huper Optik (Qx) solar-control films for the architectural glass aftermarket. This product is applied to existing windows and has a protective hard coat over the patented, transparent solar-control coating on one side and an adhesion layer on the other. Solis/V-KOOL and Huper Optik are sold through a worldwide distribution network of companies owned by or affiliated with Globamatrix.

Sales and Marketing

Distribution channels

We sell our automobile and electronic display products primarily to OEMs in North America, Europe, the Middle East and Asia, principally through our own direct sales force and sales representatives. Mitsui Chemicals is our licensee and distributor for certain of our electronic products, and has exclusive manufacturing and distribution rights for certain of our electronic products in Japan and Taiwan using our proprietary sputtering technology.

We supply our Heat Mirror architectural products to approximately 50 insulated glass and window fabricators and distributors worldwide. Our proprietary mounting technology is licensed to our customers, who use special equipment for the manufacture of Heat Mirror-equipped windows. Our field services organization assists customers in the manufacture of Heat Mirror-equipped windows. In North America, we also promote our Heat Mirror product line through approximately 30 regionally based architectural glass sales representatives.

We sell our Solis/V-KOOL and Huper Optik aftermarket products for the automotive glass and architectural markets through a worldwide distribution network of companies owned by or affiliated with Globamatrix.

International revenues amounted to approximately 87%, 85% and 89% of our net revenues during 2001, 2002 and 2003, respectively. The principal foreign markets for our products in 2003 were Japan (\$17.1 million), and France (\$9.3 million).

Warranties

We offer warranties on our products which we believe are competitive for the markets in which those products are sold. The nature and extent of these warranties depend on the product, the market, and in some cases the customer being served. We carry liability insurance. However, our insurance does not cover warranty claims and there can be no assurance that our insurance will be sufficient to cover all product liability claims in the future or that the costs of this insurance or the related deductibles will not increase materially.

Customers

Our customers include many of the world's leading OEMs in the automotive glass and electronic display markets. Our customers in the OEM automotive glass market include Saint Gobain Sekurit, Pilkington PLC, and Asahi which sell glass to automobile manufacturers including DaimlerChrysler, Renault, Audi, BMW, Volvo, Volkswagen and the PSA Group (which includes Peugeot and Citroen). We currently have a supply agreement with Saint Gobain Sekurit, which runs through December 2005. Our failure to produce the required amounts of products under the agreement could result in price penalties on future sales under the agreements.

Our customers in the electronic display market include Mitsubishi Electric Corporation and Mitsui Chemicals. Our customers in 2003 in the architectural market included approximately 50 fabricators of insulated glass units and laminated glass for architectural applications.

Our aftermarket applied film in the automotive and architectural glass markets is sold pursuant to an exclusive worldwide license in our distribution agreement with Globamatrix. Under the Agreement, which is scheduled to expire in 2011, Globamatrix agreed to purchase a set amount of our products during the term of the agreement subject to volume and quality standards. Our failure to produce required amounts of product under the agreement will result in penalties under which we would be required to reimburse Globamatrix for the full cost of any product not timely delivered. In 2002, Globamatrix's purchases were approximately \$0.2 million less than its minimum commitment. We forgave the shortfall as an accommodation to a long-standing customer. In September 2003, we entered into an amendment of the agreement with Globamatrix to materially reduce the quantity of product they are required to purchase from us. The adjustment was due to certain events beyond the control of the parties, including the Asian SARs epidemic, which affected the demand for our film products distributed by Globamatrix. The Amendment provided that Globamatrix was required to purchase at least \$7.6 million of product in 2003 (rather than \$13.25 million as required in the original distribution agreement); through December 31, 2003 Globamatrix placed orders to purchase \$7.8 million of product. In December 2003, the distribution agreement was further amended to set Globamatrix's 2004 minimum purchase commitments at 9.0 million. Under the original distribution agreement, Globamatrix had

been required to purchase at least \$15.25 million of product in 2004. For each year after 2004 through and including 2011, Globamatrix is required to purchase an amount of product equal to 110% of the amount of product it was required to purchase in the prior year.

A small number of customers have accounted for a substantial portion of our revenues. Our ten largest customers accounted for approximately 85%, 84% and 84% of our net sales in, 2001, 2002 and 2003, respectively. During 2003, Mitsui Chemicals, Saint Gobain Sekurit, Pilkington PLC and V-Kool accounted for 21.4%, 17.2%, 13.7% and 10.0%, respectively, of our net sales. During 2002, Saint Gobain Sekurit, Mitsubishi, Mitsui Chemicals and Pilkington PLC accounted for 18.7%, 18.0%, 15.7% and 10.8%, respectively, of our net sales. During 2001, Pilkington, Mitsubishi and Saint Gobain Sekurit accounted for 15.8%, 21.2% and 23.9%, respectively, of our net sales. Because of our fixed costs, the loss of, or substantial reduction in orders from, one or more of these customers would have a material adverse affect on our profitability and cash flow. The timing and amount of sales to these customers depends on sales levels and shipping schedules for the OEM products into which our products are incorporated. We have no control over the shipping dates or volume of products shipped by our OEM customers, and we cannot be certain that they will continue to ship products that incorporate our products at current levels or at all. In addition, we rely on our OEM customers to timely inform us of opportunities to develop new products that serve end-user demands.

Research and Development

Our research and development activities are focused upon the development of new proprietary products, thin film materials science, and deposition process optimization and automation and applied engineering. Our research and development expenditures totaled \$5.5 million, \$7.7 million and \$6.7 million, or approximately 6.6%, 11.2% and 12.4% of total net revenues, during 2001, 2002 and 2003, respectively.

Historically, our research and development efforts have been driven by customer requests for the development of new applications for thin film coated substrates. To meet the future needs of our customers, we continually seek to improve the quality and functionality of our current products and enhance our core technology. For example, in 2002 we began shipping production quantities and sizes of an anti-reflective film specifically designed for the liquid crystal display and plasma display panel markets that maintain optical clarity while reducing the reflection of ambient light to improve image quality. In 2003, we developed a new conductive film to satisfy Class B infrared shielding requirements for plasma display panels. We cannot guarantee that we will be successful in developing or marketing these applications.

Although our production systems are built by outside vendors, we work closely with our vendors on the detailed implementation of the production machine designs. Our experience with designing production systems is critical for the proper construction of these machines. Once a new machine is installed and accepted by us, our engineers are responsible for transitioning the system into commercial production to help ensure stable manufacturing yields.

Manufacturing

The table below provides information about our current production machines and the class of products that each is currently tooled to produce.

Status	Machine Number	Location	Primary Markets For Current Production	Year Commercial	Estimated Annual
				Production Initiated/ Expected	Capacity (Millions of Sq. Ft.) ⁽¹⁾
Existing	PM 1	Palo Alto	Research and development	1980	—
	PM 2	Palo Alto	Electronic display	1982	6.0
	PM 4A	Palo Alto	Automotive, architectural and display	1991	12.0
	PM 4B	Palo Alto	Automotive, architectural and display	1991	12.0
	PM 8	Dresden	Automotive, architectural and display	2000	16.0
	PM 9	Dresden	Automotive, architectural and display	2001	16.0

(1) Estimated annual capacity represents our estimated yields based on our historical experience and anticipated product mix. The amount of product for which we receive orders and which we actually produce in any year may be materially less than these estimates.

(2) The first customer approvals of products manufactured on PM 10 were received during the first quarter of 2003.

We had three additional production machines located in Tempe, Arizona, which were used for electronic display and automotive product manufacturing. In December 2003, we ceased production on those machines and transferred ownership of two of the machines to a third party in connection with the settlement of litigation relating to the machines. We are attempting to sell the third machine, and the proceeds of such sale will be applied against the outstanding loan obligation owed to the holder of a lien on the machine. We also have two small-scale sputtering machines in Palo Alto, which are used for pre-production qualification when they are not used for their primary research and development function. We also employ a wet coating and laminating machine, which is used to apply various topcoats and adhesives, and for lamination of liner films. This technology was utilized at our Tempe manufacturing facility during 2003 and will be moved to our Palo Alto manufacturing facility in the first half of 2004.

Our Dresden facility is ISO 9001/2000 certified.

Environmental Matters

We use potentially hazardous materials in our research and manufacturing operations and have air and water emissions that require controls. As a result, we are subject to stringent federal, state and local regulations governing the storage, use and disposal of wastes. We contract with outside vendors to collect and dispose of waste at all of our production facilities in compliance with applicable environmental laws. In addition, we have in place procedures that we believe enable us to deal properly with the gasses emitted in our production process, and we have implemented a program to monitor our past and present compliance with environmental laws and regulations. Although we believe we are currently in material compliance with such laws and regulations, current or future laws and regulations may require us to make substantial expenditures for compliance with chemical exposure, waste treatment or disposal regulations.

Suppliers and Subcontractors

We manufacture our products using materials procured from third-party suppliers. We obtain certain of these materials from limited sources. For example, we believe the substrates we use in the manufacture of the Heat Mirror product is currently available from one qualified source, Teijin Limited, holder of approximately 5.3% of our common stock as of March 1, 2004. The substrates used in the manufacture of our anti-reflective film are currently available from only two qualified sources, Teijin and Dai Nippon Printing. The loss of these current sources could adversely affect our ability to meet our scheduled product deliveries to customers. In each case, alternative sources of supply are being pursued; however, it takes approximately 18 to 24 months for us to qualify a new supplier and we may not be able to successfully develop alternative sources of supply.

We rely on third-party subcontractors to add properties, such as adhesives, to some of our products. There are only a limited number of qualified subcontractors that can provide some of the services we require. A significant increase in the price charged by one or more of our subcontractors could force us to raise prices on our products or lower our margins, which could have a material adverse effect on our operating results.

Furthermore, our production machines are large, complex and difficult to design and assemble. It can take up to a year from the time we order a machine until it is delivered. Following delivery, it can take us, with the assistance of the manufacturer, up to six additional months to test and prepare the machine for commercial production. There are a limited number of companies that are capable of manufacturing these machines to our specifications. Our inability in the future to have new production machines manufactured and prepared for commercial production in a timely manner would have a material adverse effect on our business.

Backlog

Our backlog primarily consists of purchase orders for products to be delivered within 90 days. As of March 31, 2003 and March 31, 2004, we had a backlog of orders able to be shipped over the next 12 months of approximately \$12.3 million and \$10.5 million, respectively. None of these orders are firm orders and all are subject to cancellation. For these reasons, these orders may not be indicative of our future revenues.

Competition

The thin film coatings industry and the markets in which our customers compete experience rapid technological change, especially the electronic display market. Adoption by our competitors of new equipment or process technologies could adversely affect us. We have a number of present and potential competitors, including our customers, many of which have greater financial resources and greater selling, marketing and technical resources than we possess.

Automotive glass market. Large, worldwide glass laminators typically have divisions selling products to the commercial flat glass industry and provide solar control products in the automotive OEM market. Several of these companies, such as PPG, Pilkington PLC, Saint Gobain, Asahi, Guardian, and Glaverbel, have direct-to-glass sputtering capability. In the applied film segment of the automotive market, companies such as 3M, Bekeart, CP Films (a subdivision of Solutia), and Lintec Inc. produce competitive solar control products that are widely accepted in the market. In addition, during 2001, 3M entered the automotive solar control market with an all-polymer film. Although this non-metallic film has the advantage of being completely corrosion resistant, its many layers may delaminate. We may also be subject to future competition from companies that are able to infuse glass with solar control properties. We estimate that in 2003 our coated substrates were used in less than 1% of the total worldwide automotive OEM glass produced.

Electronic display market. Competitors in the electronic display market include companies developing new coatings, such as wet coatings, for flat panel displays, as well as competitors who supply sputter coated films similar to those produced by us. Customers' selection of anti-reflective products is driven by quality, price and capacity. In addition, some of our current and potential customers are capable of creating products that compete with our products. We estimate that in 2003 our coated substrates were applied to less than 4% of the products in the 19 inch and 22 inch worldwide, flat screen CRT market.

Architectural market. Products that provide solar control and energy conservation have been available to this market for almost 20 years. Since our introduction of our Heat Mirror suspended film product in 1979, large glass producers such as Guardian, PPG, Apogee Enterprises, Pilkington, Saint Gobain Sekurit, and Asahi, have produced their own direct-to-glass sputtered products that provide solar control and energy conservation similar to our Heat Mirror product. We estimate that in 2003 our coated substrates were used in less than 1% of the glass used worldwide in residential and commercial buildings.

Basis of competition

We believe we compete principally on the basis of:

- Proprietary thin film sputtering process knowledge and control systems;
- Our extensive thin film materials expertise and optical design capabilities;
- Our new, state-of-the-art coating facility in a low-cost labor environment, with significant financial support from local and federal governments in Germany; and
- Our ability to easily alter the format of our products, providing our customers with inventory versatility and higher production yields.

Employees

As of March 1, 2004, we had 150 full-time employees, of whom 24 were engaged in engineering, 80 in manufacturing, and 46 in selling, marketing, general management, finance and administration. We are highly dependent upon the continuing services of certain technical and management personnel. None of our U.S. employees is represented by a labor union. To our knowledge, none of our German employees are represented by a labor union. We consider our employee relations to be good.

ITEM 2. PROPERTIES

Our administrative, marketing, engineering and manufacturing facilities are located in three buildings totaling approximately 57,000 square feet in Palo Alto, California. The buildings in Palo Alto are occupied under leases that expire from 2004 to 2005, with options to extend some of these leases for terms expiring through 2009. In 2002, we have vacated two buildings in Palo Alto, which have lease agreements that expire at December 31, 2004. We own our 60,000 square foot building in Dresden, which we took possession of in May 2000.

We also leased property in Tempe, Arizona, under a lease that we re-negotiated and expect to terminate on April 30, 2004.

ITEM 3. LEGAL PROCEEDINGS

In July 2002, we were served with a complaint in a lawsuit captioned "Hurricane Glass v. Southwall Technologies Inc. and V-Kool, Inc." filed in the Circuit Court of the Twelfth Judicial Circuit in and for Sarasota County, Florida. The complaint alleges that Hurricane was a distributor of our "Solis" product, that Hurricane's customers experienced various problems and failures with the product and that, as a result, Hurricane was required to perform repairs and replacements under its warranty provisions. The complaint alleges approximately \$0.4 million in damages against both defendants. We filed a motion to dismiss based on improper venue, which was denied. On June 4, 2003, the Court of Appeals overturned the lower court's order and granted our motion to dismiss. On October 20, 2003, we were served with a substantially similar lawsuit captioned "Hurricane Glass Shield, Inc. v. Southwall Technologies, Inc." filed in the Superior Court of the State of California in Santa Clara, California. We have filed a demurrer motion seeking to dismiss the case in its entirety. A hearing on that motion is scheduled for May 20, 2004.

We have been named as a defendant, along with Bostik, Inc., in an action entitled "WASCO Products, Inc. v. Southwall Technologies Inc. and Bostik, Inc.," Civ. Action No. C 02-2926 CRB, which was filed in Federal District Court for the Northern District of California on June 18, 2002. We previously filed a Motion to Dismiss and an Opposition to Class Certification. The Motion to Dismiss was granted to us on May 29, 2003. The plaintiff filed its Third Amended Complaint on June 27, 2003. On December 23, 2003, our motion for summary judgment on all of Wasco's remaining claims was granted in our favor. Wasco has filed a notice of appeal to the United States Court of Appeals for the Ninth Circuit.

We were a defendant in an action entitled "Portfolio Financial Servicing Company v. Southwall Technologies Inc.," which was filed in state court in Utah on May 22, 2002. This action arose out of sale-leaseback agreements, which we entered into with an entity formerly known as Matrix Funding Corporation, or Matrix, in 1999 in connection with the acquisition of two of our production machines. Matrix thereafter filed bankruptcy proceedings. Plaintiffs in the action were Bank of America, which alleged that it was the successor in interest to Matrix, and Portfolio Financial Servicing Company, which claimed to be an agent of the successor to Matrix. The plaintiffs demanded payment of \$6.5 million, which they alleged constituted unpaid lease payments, plus the alleged residual value of the equipment, less monies that Matrix owed to Southwall. We asserted that Matrix violated certain material terms of the lease. We entered into a settlement agreement with the plaintiffs on July 31, 2003, pursuant to which this claim would have been extinguished by payment from us to the plaintiffs of \$2.5 million. The settlement agreement was subject to the satisfaction of certain conditions, which were required to be fulfilled on or before October 1, 2003, including the payment of the settlement amount, substantially all of which we needed to borrow. The conditions were not satisfied by October 1, 2003, and the settlement agreement terminated. We reentered discussions with the plaintiffs and achieved a revised settlement agreement on February 20, 2004. Pursuant to the revised settlement agreement, we agreed to pay the plaintiffs a total of \$2.0 million plus interest over a period of 6 years from December 31, 2004 until December 31, 2010. We also agreed to return to the plaintiffs the equipment in question. If we fail to make the required payments, the plaintiffs may enter a confession of judgment against us in the amount of \$5.9 million.

We are a defendant in an action filed on April 5, 1996 entitled "Four Seasons Solar Products Corp. vs. Black & Decker Corp., Bostik, Inc. and Southwall Technologies Inc.," No. 5 CV1695, pending in the United States District Court for the Eastern District of New York. Plaintiff is a manufacturer of insulated glass units which incorporate our Heat Mirror film. Plaintiff alleges that a sealant provided by the co-defendant is defective, asserts causes of action for breach of contract, unfair competition, and fraudulent concealment, and seeks monetary damages of approximately \$36 million for past and future replacement costs, loss of customer goodwill, and punitive damages against all defendants. We filed a motion to dismiss. On April 8, 2003, the court issued an order granting final judgment in the Company's favor. Four Seasons has filed a Notice of Appeal. The appeal has been fully briefed and argued, but no decision has been rendered.

The insurance carriers in some of the litigation related to alleged product failures and defects in window products manufactured by others in which we were a defendant in the past paid the defense and settlement costs related to such litigation. Those insurance carriers reserved their rights to recover a portion or all of such payments from us. As a result, those insurance carriers could seek from us up to an aggregate of \$12.9 million plus defense costs, although any such recovery would be restricted to claims that were not covered by our insurance policies. We intend to vigorously defend any attempts by these insurance carriers to seek reimbursement. We are not able to estimate the likelihood that these insurance carriers will seek to recover any such payments, the amount, if any, they might seek, or the outcome of such attempts.

In addition, we are involved in certain other legal actions arising in the ordinary course of business. We believe, however, that none of these actions, either individually or in the aggregate, will have a material adverse effect on our business, our consolidated financial position, results of operations or cash flows.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matters were submitted to a vote of the security holders during the quarter ended December 31, 2003.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSURER'S PURCHASE OF EQUITY SECURITIES

Our common stock is traded on the pink sheets under the symbol "SWTX.PK". From the completion of our initial public offering in June 1987 until March 26, 2004, our common stock was traded on the Nasdaq National Market System. Effective March 26, 2004, we voluntarily de-listed from Nasdaq and applied to begin trading on the pink sheets. Due to the structure of the recent transaction in which we issued convertible promissory notes and warrants, as further described below, we were no longer in compliance with certain Nasdaq listing requirements. We felt that a voluntary delisting from Nasdaq and move to the pink sheets would provide the best option to our shareholders by retaining liquidity in our common stock. Prices in the following table represent the high and low closing sales prices per share for our common stock as reported by Nasdaq during the periods indicated.

	<u>High</u>	<u>Low</u>
2002		
1st Quarter.....	\$12.99	\$7.19
2nd Quarter.....	15.45	4.68
3rd Quarter.....	4.90	1.95
4th Quarter.....	3.50	2.04
2003		
1st Quarter.....	\$3.35	\$1.01
2nd Quarter.....	1.39	0.82
3rd Quarter.....	2.63	1.04
4th Quarter.....	2.38	0.80

On April 5, 2004, the last reported sale price for our common stock as reported on the pink sheets was \$0.90 per share. On such date, there were approximately 289 holders of record of our common stock, and we believe there were approximately 3,000 beneficial owners of our common stock.

Recent Sales of Unregistered Securities

On December 18, 2003, in order to raise cash to fund our operations and continue as a going concern, we entered into an investment agreement with Needham & Company, Inc., Needham Capital Partners II, L.P., Needham Capital Partners II (Bermuda), L.P., Needham Capital Partners III, L.P., Needham Capital Partners IIIA, L.P., Needham Capital Partners III (Bermuda), L.P., and Dolphin Direct Equity Partners, LP. On February 20, 2004, we amended and restated that agreement and issued \$4.5 million of Secured Convertible Promissory Notes that are convertible into our Series A 10% Cumulative Convertible Preferred Stock, par value \$0.01 per share, or the Series A shares, at a conversion price of \$1.00 per share, together with warrants initially exercisable for 13,881,501 shares of our common stock at a nominal exercise price. Each of the Series A shares is convertible into common stock at any time at the option of the holder at a conversion price of \$1.00 per share, subject to adjustment, PLUS accumulated but unpaid dividends. The securities issued were exempt from registration under Regulation D of the Securities Act of 1933, as amended. The terms of the investment agreement are further described in "Management's Discussion and Analysis of Financial Condition and Results of Operations" below.

Dividends

We have never declared or paid any cash dividends on our common stock, and we do not anticipate paying cash dividends in the foreseeable future. We currently intend to retain future earnings, if any, to fund the expansion and growth of our business. Furthermore, payment of cash dividends on our common stock is prohibited by the investment agreement and our credit facilities with our senior lender, Pacific Business Funding.

ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA (in thousands, except per share data)

The following selected consolidated financial data as of and for each of the five years ended December 31, 2003 are derived from our audited consolidated financial statements. This information should be read together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and related notes included elsewhere in this report.

Consolidated Statements of Operations Data:

	Year Ended December 31,				
	1999	2000	2001	2002	2003
	(in thousands, except per share data)				
Net revenues, by product					
Automotive glass.....	\$ 19,477	\$ 20,198	\$ 37,385	\$ 25,697	\$ 23,245
Electronic display.....	16,014	47,734	29,691	26,555	19,019
Architectural.....	19,107	17,416	15,900	16,507	11,062
Total net revenues.....	54,598	85,348	82,976	68,759	53,326
Cost of sales.....	40,706	69,060	60,148	49,614	45,914
Gross profit.....	13,892	16,288	22,828	19,145	7,412
Operating expenses:					
Research and development.....	5,249	6,732	5,456	7,685	6,714
Selling, general and administrative.....	8,670	12,614	11,036	12,450	12,348
Legal settlement.....	500	536	--	--	--
Restructuring costs.....	--	--	--	2,624	(65)
Impairment charge for long-lived assets.....	--	--	--	--	27,990
Total operating expenses.....	14,419	19,882	16,492	22,759	46,987
Income (loss) from operations.....	(527)	(3,594)	6,336	(3,614)	(39,575)
Interest expense.....	(1,350)	(2,808)	(2,872)	(1,734)	(1,590)
Costs of warrants issued.....	--	--	--	--	(865)
Other income (expense), net.....	62	350	1,385	1,070	419
Income (loss) before provision	(1,815)	(6,052)	4,849	(4,278)	(41,611)
Provision for (benefit from) income taxes.....	50	128	214	(87)	681
Net income (loss).....	\$ (1,865)	\$ (6,180)	\$ 4,635	\$ (4,191)	\$ (42,292)
Net income (loss) per share:					
Basic	(\$0.25)	(\$0.81)	\$0.58	(\$0.40)	(\$3.37)
Diluted	(\$0.25)	(\$0.81)	\$0.57	(\$0.40)	(\$3.37)
Weighted average shares of common stock and dilut potential common stock:					
Basic	7,421	7,642	8,032	10,418	12,537
Diluted	7,421	7,642	8,186	10,418	12,537

Consolidated Balance Sheet Data:

	As of December 31,				
	1999	2000	2001	2002	2003
	(in thousands)				
Cash, cash equivalents and restricted cash.....	\$ 1,772	\$ 61	\$ 3,362	\$ 2,629	\$ 1,891
Working capital (deficit).....	(11,699)	(32,148)	(6,471)	588	(4,210)
Property, plant and equipment.....	43,533	49,884	47,841	50,251	21,787
Total assets.....	70,142	80,462	73,158	76,582	41,721
Long-term debt including current portion.....	24,175	26,430	22,828	16,752	15,700
Total liabilities.....	45,562	60,324	46,706	36,108	40,000
Total stockholders' equity	\$ 24,580	\$ 20,138	\$ 26,452	\$ 40,474	\$ 1,721

Selected Cash Flow Data:

	Year-Ended December 31,				
	1999	2000	2001	2002	2003
	(in thousands)				
Cash provided by (used in) operating activities.....	\$ 4,523	\$ 1,188	\$ 13,792	\$ (2,824)	\$ (2,990)
Net cash used in investing activities.....	(25,942)	(12,855)	(5,698)	(6,014)	(2,775)
Net cash provided by (used in) financing activities...	19,055	9,994	(4,628)	7,679	5,548

Quarterly Financial Data:

The following table sets forth statements of operations data for the eight fiscal quarters ended December 31, 2003. This information has been derived from our unaudited consolidated financial statements and has been prepared on the same basis as our audited consolidated financial statements contained in this report. It includes all adjustments, consisting of normal recurring adjustments

only, that we consider necessary for a fair presentation of such information when read in conjunction with our audited financial statements and related notes. Operating results for any quarter are not necessarily indicative of results for any future period. This information should be read together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and related notes included elsewhere in this report.

Selected Quarterly Financial Information (Unaudited):

	Quarters Ended			
	Mar. 31, 2002	Jun. 30, 2002	Sep. 29, 2002	Dec. 31, 2002
	(in thousands, except per share amounts)			
Net revenues.....	\$ 19,269	\$ 19,676	\$ 16,290	\$ 13,524
Cost of sales.....	12,425	12,954	11,682	12,553
Gross profit.....	6,844	6,722	4,608	971
Income (loss) before provision (benefit) for income taxes.....	1,234	1,228	137	(6,877)
Net income (loss).....	1,181	1,394	125	(6,891)
Net income (loss) per share:				
Basic	0.14	0.16	0.01	(0.55)
Diluted	\$ 0.13	\$ 0.15	\$ 0.01	\$ (0.55)
Weighted average shares of common stock and dilutive potential common stock:				
Basic	8,417	8,624	12,094	12,510
Diluted	9,277	9,552	12,169	12,510

	Quarters Ended			
	Mar. 30, 2003	Jun. 29, 2003	Sep. 28, 2003	Dec. 31, 2003
	(in thousands, except per share amounts)			
Net revenues.....	\$ 15,221	\$ 15,328	\$ 11,902	\$ 10,875
Cost of sales.....	12,183	12,405	10,238	11,088
Gross profit.....	3,038	2,923	1,664	(213)
Income (loss) before provision (benefit) for income taxes.....	(1,644)	(1,537)	(22,684)	(15,746)
Net income (loss).....	(1,659)	(1,713)	(22,781)	(16,139)
Net income (loss) per share:				
Basic	(0.13)	(0.14)	(1.82)	(1.29)
Diluted	\$ (0.13)	\$ (0.14)	\$ (1.82)	\$ (1.29)
Weighted average shares of common stock and dilutive potential common stock:				
Basic	12,527	12,532	12,542	12,544
Diluted	12,527	12,532	12,542	12,544

Our results of operations have varied significantly from quarter to quarter, and we expect them to continue to do so in the future. As a result of our high fixed costs, if revenues fall below our expectations, we may not be able to reduce our spending sufficiently to prevent a loss from operations. We anticipate that our sales will continue to have long sales cycles. Therefore, the timing of future customer contracts could be difficult to predict, making it very difficult to predict revenues in future quarters, and our operating results may continue to vary significantly.

During 2001, our Dresden facility, including PM 8 and PM 9, commenced production of commercial product for the automotive market. This expansion in our overall manufacturing capacity allowed us to increase significantly our sales to the automotive market in 2001, compared with 2000. A third production machine in Dresden (PM 10) began limited commercial production in the first quarter of 2003. We expect this machine to be used primarily to manufacture products for the electronic display, automotive and architectural after markets. Our sales to the automotive market in 2003 were significantly lower than in 2002 we believe as a result of competition from alternative technological solutions—primarily direct coating onto glass, which we believe can be accomplished by sputtering and by pyrolytic means. This manufacturing process is currently being used by two of our automotive customers—Pilkington PLC and Saint Gobain Sekurit. The process uses the heat of the molten glass to make a single layer, metal oxide coating from a solution sprayed onto the

glass. Because this technique produces only single layer coatings, the solar performance is limited. We are unable to predict if this technical solution will further erode our sales to the automotive market.

A third production machine in Dresden (PM 10) began limited commercial production in the first quarter of 2003. This machine is expected to be used primarily to manufacture products for the electronic display, automotive and architectural after markets. We had three additional production machines located in Temple, Arizona, which were used for electronic display and automotive product manufacturing. In December 2003, we ceased production on those machines and transferred ownership of two of the machines to a third party in connection with the settlement of litigation relating to the machines. We are attempting to sell the third machine, and the proceeds of such sale will be applied against the outstanding loan obligation owed to the holder of a lien on the machine.

Other factors that could affect our quarterly operating results include those described elsewhere in this report and the following:

- fluctuating customer demand, which is influenced by a number of factors, including market acceptance of our products and the products of our customers and end-users, changes in product mix, and the timing, cancellation or delay of customer orders and shipments;
- our ability to maintain sufficient liquidity;
- timing of shipments of our products by us and by independent subcontractors to our customers;
- manufacturing and operational difficulties that may arise due to, among other things, quality control, capacity utilization of our production machines, unscheduled equipment maintenance, and the hiring and training of additional staff;
- progress and outcome of litigation with which we are involved;
- announcement, consummation or integration by us of any acquired businesses, technologies or products;
- our ability to introduce new products on a timely basis;
- competition, including the introduction or announcement of new products by competitors, the adoption of competitive technologies by our customers, the addition of new production capacity by competitors and competitive pressures on prices of our products and those of our customers; and
- product returns and customer allowances stemming from product quality defects.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with Item 6, "Selected Consolidated Financial Data", our consolidated financial statements and notes thereto appearing elsewhere in this report and the risk factors beginning on page 35. This discussion and analysis contains forward-looking statements that involve risks and uncertainties. You should not place undue reliance on these forward-looking statements. Our actual results may differ materially from those anticipated in these forward-looking statements.

Overview

We are a global developer, manufacturer and marketer of thin film coatings on flexible substrates for the automotive glass, electronic display and architectural glass markets. We have developed a variety of products that control sunlight in automotive glass, reduce light reflection, reduce electromagnetic radiation and improve image quality in electronic display products and conserve energy in architectural products. Our products consist of transparent solar-control films for automotive glass; anti-reflective films for computer screens, including flat panel displays, plasma displays, and transparent conductive films for use in touch screen and liquid crystal displays; energy control films for architectural glass; and various other coatings.

We have experienced a significant reduction in our annual revenues since 2000, and we anticipate a further decline in our revenues in 2004. Demand for our customers' products has changed rapidly from time to time in the past and may do so in the future. For example, as a result of changing demand in the personal computer industry from 1999 through 2003, our electronic display revenues rose from \$16.0 million in 1999 to \$47.7 million in 2000 then declined to \$29.6 million, \$26.6 million and \$19.0 million in 2001, 2002, and 2003, respectively. Similarly, our revenues from our automotive segment rose from \$20.2 million in 2000, to \$37.4 million in 2001, and declined to \$25.7 million and \$23.2 million in 2002 and 2003, respectively, because of competition from alternative technology solutions. Demand for our products can also be affected when the markets for the products in which our films are used evolve to new technologies, such as the evolution from cathode ray tubes, or CRTs, to flat panel displays.

Cumulative operating losses, negative working capital, negative cash flows, and defaults with respect to our debt obligations, and our current cash balance raise substantial doubt about our ability to continue as a going concern. We incurred a net loss and negative cash flows from operations in 2003 and expect to incur net losses and negative cash flows through at least the third quarter of 2004. As of December 31, 2003 and March 31, 2004, our cash and cash equivalents and restricted cash were \$1.8 million and \$2.2 million, respectively. Our line of credit facility will expire on May 5, 2004 and we are currently in negotiations with financial institutions to renew, or replace our existing line of credit. If we are unable to maintain our existing financing sources, or procure new sources of financing we may be unable to satisfactorily meet all of the cash commitments required to fund our operations or to continue as a going concern.

Recent Financing and Related Transactions

Overview. On December 18, 2003, in order to raise cash to fund our operations and continue as a going concern, we entered into an investment agreement with Needham & Company, Inc., Needham Capital Partners II, L.P., Needham Capital Partners II (Bermuda), L.P., Needham Capital Partners III, L.P., Needham Capital Partners IIIA, L.P., Needham Capital Partners III (Bermuda), L.P., and Dolphin Direct Equity Partners, LP, collectively, the Investors. On February 20, 2004, we amended and restated that agreement. Under the terms of the amended and restated agreement, we agreed to issue and sell \$4.5 million of Secured Convertible Promissory Notes that are convertible into our Series A 10% Cumulative Convertible Preferred Stock, par value \$.001 per share, or the Series A shares, at a conversion price of \$1.00 per share, together with warrants initially exercisable for 13,881,501 shares of our common stock. If the Investors were to exercise all warrants and convert all Series A shares issuable to them pursuant to the terms of the investment agreement, our senior lender, Pacific Business Funding, or PBF, were to exercise all warrants currently issued to it, and our option holders were to exercise all options currently outstanding, we would have 33,850,231 shares of common stock outstanding. We currently have 20,000,000 shares of common stock authorized under our certificate of incorporation. We expect to call a special meeting of our stockholders for the purpose of seeking approval of an amendment to our certificate of incorporation increasing the number of authorized shares available for issuance to a number that would allow us to meet fully our obligations to issue shares of capital stock under the investment agreement. If an amendment to our certificate of incorporation is not approved, the amounts due under the convertible notes will accelerate 45 days after the shareholder vote, and we will not be able meet our obligations under the investment agreement. The resulting lack of capital will prevent us from funding our operations and continuing as a going concern. The form of the amended and restated Certificate of Designation describing the preferences and rights of the Series A shares and the Amended and Restated Investment Agreement and related documents are included as exhibits to our Current Report on Form 8-K/A, dated and filed with the SEC on March 3, 2004.

Background. As described above, during 2003, we experienced a significant decline in sales which led to a significant deterioration in our working capital position, which has raised concerns about our ability to fund our operations and continue as a going concern in the short term and our ability to meet obligations coming due over the next few years.

On October 8, 2003, our management reviewed the revenue forecast for the fourth quarter of 2003 and determined the anticipated sales for the quarter would not generate enough cash flow to continue operations through the end of the quarter. Management presented its findings to our Board of Directors on October 10, 2003 and the directors instructed our management team to develop an emergency restructuring plan to improve our cash flow and to obtain new financing.

The primary elements of management's restructuring plan included:

- Shutting down a majority of our domestic manufacturing and transferring that production to our Dresden, Germany facility;
- Beginning a series of staggered layoffs;
- Arranging new payment terms with all major creditors and vendors to extend or reduce our payment obligations;
- Accelerating our cash collections;
- Reducing our operating expenses and inventory levels; and
- Minimizing our capital expenditures.

We also began to solicit and receive proposals from potential investors and lenders. We evaluated a variety of public and private market alternatives to raise additional capital, as well as alternatives to restructure our upcoming payment obligations without raising additional capital. Our access to the traditional capital markets was, and continues to be, constrained, however, by a number of factors, including the risks described below under "Risk Factors." As a result, we concluded that a private equity investment was the most attractive alternative to continue as a going concern. We received and evaluated three financing proposals, including the Needham proposal, which is described in further detail below. One proposal consisted of an initial offer to purchase up to \$3.0 million of common stock at a price equal to 70% of the average closing price of our common stock on Nasdaq during the 10 days preceding the closing date. The investment would have been in two tranches, an initial tranche of \$2.0 million and a second tranche of \$1.0 million, which would have been purchased within 18 months of the first equity tranche. The second equity tranche was not guaranteed and would have been exercisable at the discretion of the investor. The proposal from this investor also required us to issue warrants exercisable within five years of issuance for approximately 6.0 million shares of our common stock at an exercise price equal to 110% of the closing price of our common stock on Nasdaq as of the day prior to the closing date. The proposal received from the third investor contemplated issuing a \$2.0 million letter of credit to PBF against which we could borrow under our existing Domestic Factoring Agreement. All three proposals were presented to our directors for evaluation. The proposals from investors other than Needham were rejected because we felt the amount of guaranteed cash we would have received under either proposal would have been insufficient to meet our short-term operational cashflow requirements.

After reviewing and seeking to negotiate revisions to all of the proposals submitted, the Board determined on November 10, 2003 to proceed with the Needham & Company, Inc. offer. We entered into a non-binding letter of intent with Needham on November 11, 2003 to sell \$3.0 million of Series A shares at a price of \$1.00 per share. Needham also agreed to guarantee up to \$2.0 million of additional borrowing under our existing Domestic Factoring Agreement with our senior lender, PBF. In connection with the guarantee and the sale of the Series A shares, we agreed to issue warrants to Needham exercisable for a number of shares of our common stock equal to 10% of the total shares outstanding, at a nominal exercise price. During the negotiations of the investment agreement, the parties agreed to increase the aggregate number Series A shares to be sold to 4.5 million. The parties also increased the guarantee to \$3.0 million and determined that it would apply to a new line of credit facility with PBF.

On December 18, 2003, we entered into the investment agreement with the Investors. Under the terms of the investment agreement, Needham agreed to issue the guarantees of our new line of credit facility in two separate tranches of \$2.25 million and \$750,000, respectively, and the Investors agreed to purchase the Series A shares in two separate tranches of \$1.5 million and \$3.0 million, respectively. The new borrowings and the purchase of each equity tranche were subject to certain conditions, including, among other things, the receipt of concessions from creditors and landlords, the completion by us of certain restructuring actions and the achievement of cash flow break-even at quarterly revenue levels below those of the third quarter 2003. Needham executed a guarantee of up to \$2.25 million under the new line of credit facility on December 18, 2003, and received a warrant to purchase 941,115 shares of our common stock, approximately 7.5% of our total shares currently outstanding at an exercise price of \$0.01. On January 15, 2004, Needham executed a guarantee with respect to an additional \$750,000 under the new line of credit and received an additional warrant to purchase 941,115 shares of common stock at an exercise prices of \$0.01.

On February 20, 2004, the parties amended and restated the investment agreement to provide that we would issue and sell to the Investors an aggregate of \$4.5 million of our convertible notes in one tranche instead of Series A Convertible Preferred shares in two separate tranches. Under the investment agreement, we were also required to issue additional common stock warrants to the Investors as anti-dilution protection for the issuance of debt and equity by us as part of the restructuring of our obligations to creditors. In connection with the sale of the convertible notes and honoring the Investors' anti-dilution protection, on February 20, 2004 we issued warrants to the Investors to purchase a total of 10,305,264 shares of our common stock at an exercise price of \$0.01, approximately 82.1% of our total shares currently outstanding.

Summary of Current Ownership by Investors. Following completion of the financing, based on securities outstanding as of March 28, 2004, the following convertible securities and warrants are held by the Investors:

- if Needham and its affiliated entities were to exercise all of their warrants and convert all of their Series A shares (issuable upon conversion of its convertible notes), while maintaining their current ownership of approximately 2,200,067 shares of common stock, then Needham and its affiliated entities would own approximately 15,166,764 shares of our common stock, or about 59.4% of the total shares outstanding, including such issuances to Needham and its affiliates but excluding outstanding warrants and Series A shares held by other Investors.
- if Dolphin Direct Equity Partners, LP were to exercise all warrants and convert all of its Series A shares (issuable upon conversion of its convertible notes), then Dolphin would own approximately 5,498,141 shares of our common stock, or about 30.5% of the total shares outstanding, including such issuances to Dolphin but excluding outstanding warrants and Series A shares held by other Investors.

Material Terms of the Secured Convertible Promissory Notes. In connection with the investment agreement, we issued convertible notes in an aggregate principal amount of \$4.5 million to the Investors. The convertible notes:

- are convertible, at the holders' option, into our Series A shares at a conversion price of \$1.00 per share;
- accrue interest at an annual rate of 10%, compounded daily;
- are secured by a pledge of a portion of the common stock of our subsidiary, Southwall Europe GmbH; and
- are due and payable on February 20, 2009 or earlier under certain circumstances. For instance, the failure of our stockholders to approve an amendment to our charter increasing the number of shares we are authorized to issue thereunder will result in the convertible notes becoming due and payable 45 days after the shareholder vote.

In addition, so long as any of the convertible notes are outstanding, the approval of the holders of a majority of the convertible notes will be required to effect certain corporate actions.

Material Terms of the Series A Shares. The convertible notes are convertible into Series A Convertible Preferred shares, which have the following terms:

- *Dividends.* Each of the Series A shares will have a stated value of \$1.00 and will be entitled to a cumulative dividend of 10% per year, payable at the discretion of the Board of Directors. Dividends on the Series A shares shall accrue daily commencing on the date of issuance and shall be deemed to accrue whether or not earned or declared and whether or not there are profits, surplus or other funds legally available for the payment of dividends. Accumulated dividends, when and if declared by the Board, will be paid in cash.
- *Restrictions.* So long as any Series A shares are outstanding, unless all accrued dividends on all Series A shares have been paid, we are prohibited from taking certain actions, including redeeming or purchasing shares of our common stock and paying dividends on our common stock.
- *General Voting Rights.* Except under certain circumstances or as otherwise provided by law, the holders of Series A shares have no voting rights. The approval of the holders of a majority of the Series A shares voting separately as a class will be required to effect certain corporate actions.
- *Liquidation Preference.* Upon a liquidation or dissolution of Southwall, the holders of Series A shares are entitled to be paid a liquidation preference out of assets legally available for distribution to our stockholders before any payment may be made to the holders of common stock. The liquidation preference is equal to the stated value of the Series A shares, which is \$1.00 per share, plus any accumulated but unpaid dividends. Mergers, the sale of all or substantially all of our assets, or the

acquisition of Southwall by another entity and certain other similar transactions may be deemed to be liquidation events for these purposes.

- *Conversion.* Each of the Series A shares is convertible into common stock at any time at the option of the holder. Each of the Series A shares is convertible into a number of shares of common stock equal to the sum of its stated value plus any accumulated but unpaid dividends, divided by the conversion price of the Series A shares. The conversion price of the Series A shares is \$1.00 per share and is subject to adjustment in the event of any stock dividend, stock split, reverse stock split or combination affecting such shares. The Series A shares also have anti-dilution protection that adjusts the conversion price downwards using a weighted-average calculation in the event we issue certain additional securities at a price per share less than the closing price per share of our common stock on any stock exchange on which our common stock is listed. Each Series A share is initially convertible into one share of common stock. If the closing price of our common stock on any stock exchange on which our common stock is listed is \$4.00 or more per share (subject to appropriate adjustment if a stock split, reverse split or similar transaction is effected) for 30 consecutive days, all outstanding Series A shares shall automatically be converted.
- *Redemption.* The Series A shares are not redeemable.

Material Terms of the Warrants.

In connection with the investment agreement, we issued warrants to the Investors that may be exercised to acquire up to 13,881,501 shares of common stock (including warrants issued to the Investors as anti-dilution protection for the issuance of debt and equity by us as part of the restructuring of our obligations to creditors) at an initial exercise price of \$0.01 per share. The number of shares and the exercise price are both subject to appropriate adjustment in the event of stock splits, reverse stock splits and the granting of a stock dividend on our outstanding common stock. These warrants will be exercisable for cash or through a “cashless exercise” feature. The warrants are exercisable immediately and have a term of approximately five years. Upon the reclassification of our common stock or a capital reorganization, each holder of these warrants has the right to receive the same amount and kind of securities, cash or property upon exercise as it would have been entitled to receive had it been the owner of the shares of common stock underlying the warrants at the time of such transaction. Upon a merger or consolidation, a transfer of all or substantially all of our voting securities, or the sale of all or substantially all of our assets, the warrants will terminate if they have not been previously exercised. The holders of the warrants have registration rights under a registration rights agreement between the parties.

In connection with the credit facilities with our senior lender, PBF, we issued warrants to PBF that may be exercised to acquire up to 360,000 shares of common stock at an initial exercise price of \$0.01 per share. All other terms of these warrants mirrored the terms of the warrants issued to the Investors.

Other Agreements with the Investors. Other than certain issuances of equity in connection with our option plans and as part of the restructuring of our obligations to creditors, the investment agreement contains provisions that prohibit us from issuing any equity or warrants, options, rights or other instruments exercisable or convertible into equity of Southwall to any creditor, landlord, employee, director, agent or consultant until such time as we have received the approval of our stockholders to increase the number of authorized shares of our common stock issuable under our certificate of incorporation.

If, as part of our restructuring efforts, we issue any equity or warrants, options, rights or other instruments exercisable or convertible into equity, to any creditor, landlord, employee, director, agent or consultant, then we are required to issue additional warrants to each of the Investors in such amounts as would allow the Investors to maintain their aggregate ownership percentage (on a fully-diluted basis) as if such issuance had not occurred. Likewise, as part of our restructuring efforts, if we issue notes or other debt instruments to any of our creditors, then we are required to issue additional warrants to each of the Investors representing the right to purchase that number of shares of common stock equal to the product of (x) 1.25 and (y) the original principal amount of such note or debt instrument.

Agreements with Major Creditors

Teijin Limited. Teijin Limited, or Teijin, previously guaranteed our outstanding debt owed to UFJ Bank Limited (formerly known as Sanwa Bank Limited). On November 5, 2003, we defaulted on this debt and Teijin honored its guarantee by satisfying the obligation. Under the terms of Teijin’s guarantee, we were obligated to immediately repay the amounts paid by Teijin. As part of the restructuring plan, we entered into an agreement with Teijin in January 2004 to satisfy Teijin’s claim. The agreement included a payment schedule that spread the payments out over a period of four years until 2008. The obligations owed to Teijin will not accrue interest if paid according to the payment schedule. Teijin previously held a security interest in one of our production machines, which they have released. We are attempting to sell the production machine and the proceeds of such sale will be applied against the outstanding obligation. Our obligations to Teijin are guaranteed by our subsidiary, Southwall Europe GmbH.

Judd Properties, LLC. In January 2004, we reached an agreement with Judd Properties, LLC, or Judd, to modify our obligations under the lease for our chief executive offices. We agreed to a payment schedule that extends our obligations and provides us with options to extend the lease. We have issued a letter of credit in the amount of \$1.0 million to be held by Judd as security for our obligations in the event we fail to restore the property in accordance with the original lease terms. We further agreed to issue a warrant issuable for 4% of our capital stock on a fully diluted basis to be held in an escrow account pending our departure from the premises. Upon our departure, if we fail to restore the property in accordance with the original lease the warrant will be released to Judd. The warrant is exercisable for 1,410,426 shares of our common stock at a nominal exercise price. The other terms of the warrant mirror the terms of the warrants issued to the Investors. Judd will be a party to the registration rights agreement described above and hold certain other registration rights with respect to the warrant shares. Because we did not have available enough authorized shares of common stock to issue upon exercise of the warrant, we were required to issue a letter of credit in the amount of \$1.0 million to be held by Judd as security for our obligations until such time as the requisite number of authorized shares are approved by our stockholders.

Portfolio Financial Servicing Company, Bank of America and Lehman Brothers. On February 20, 2004, we entered into a settlement agreement with Portfolio Financial Services, Bank of America and Lehman Brothers which extinguishes a claim arising out of sale-leaseback agreements which we entered into in connection with the acquisition of two of our production machines. As part of the settlement, we agreed to pay a total of \$2.0 million plus interest over a period of 6 years. The settlement requires us to make an interest payment in 2004, and beginning in 2005, we will make quarterly principal and interest payments until 2010. The action and the settlement agreement are further discussed above in “Item 3 – Legal Proceedings.”

Richard A. Christina and Diane L. Christina Trust. On December 1, 2003, we reached an agreement with the Richard A. Christina and Diane L. Christina Trust (the “Trust”) to modify the lease agreement for a building located in Palo Alto, CA. Under the terms of the agreement we agreed to the Trust’s claim for damages in the amount of \$0.3 million.

Other Factors Affecting Our Financial Condition and Results of Operations

Restructuring activities. As a consequence of the decline in our revenues and negative cash flows, we have implemented several cost cutting and business restructuring activities during 2003. These activities, which included employee layoffs and the closure of several facilities (including the closure of our Tempe manufacturing facility in the fourth quarter of 2003), were designed to improve our cash flow from operations to allow us to continue as a going concern. During the fourth quarter of 2003 and the first quarter of 2004, we agreed to new payment terms with all of our major creditors and vendors which extended or reduced our payment obligations. We also entered into the investment agreement described above pursuant to which we issued \$4.5 million of convertible promissory notes and warrants to investors. If our stockholders do not approve an amendment to our certificate of incorporation increasing the number of our authorized shares available for issuance so that we can meet our obligations under the investment agreement, the amounts due under the notes will accelerate and we will be required to find further financing to continue operations.

Also, our existing line of credit facility will expire on May 5, 2004 and will need to be replaced.

Voluntary Delisting from Nasdaq. Effective March 26, 2004, we voluntarily delisted from the Nasdaq National Market and applied to begin trading on the pink sheets. Due to the structure of the transaction contemplated by the investment agreement, we were no longer in compliance with certain Nasdaq listing requirements. We felt that a voluntary delisting from Nasdaq and a move to the pink sheets would provide the best option to our shareholders by retaining liquidity in our common stock.

Demand for our customers’ products. We derive significant benefits from our relationships with a few large customers and suppliers. Our revenues and gross profit can increase or decrease rapidly reflecting underlying demand for the products of one or a small number of our customers. We may also be unable to replace a customer when a relationship ends or demand for our product declines as a result of evolution of our customer’s products. In 1999, we began our relationship with Mitsubishi Electric Company, or Mitsubishi, which accounted for 21%, 18% and 9% of our total revenues in 2001, 2002 and 2003, respectively. The decrease in revenues from Mitsubishi was a significant contributing factor in the decline in our revenues in 2003 as compared to 2002. In 1999, we expanded our relationship with customers in the automotive glass market, including Pilkington PLC, Saint Gobain Sekurit and Globamatrix Holdings Pte. Ltd., or Globamatrix, which collectively accounted for approximately 46%, 37% and 45% of our total revenues in 2001, 2002 and 2003, respectively.

Our customer and supplier relationships. In September 2003, we entered into an amendment of the agreement with Globamatrix to materially reduce the quantity of product they are required to purchase from us. The adjustment was due to certain events beyond the control of the parties, including the Asian SARs epidemic, which affected the demand for our film products distributed by Globamatrix. The Amendment provided that Globamatrix was required to purchase at least \$7.6 million of product in 2003 (rather than \$13.25 million as required in the original distribution agreement); through December 31, 2003, Globamatrix placed orders to purchase \$7.8 million of product. In December 2003, the distribution agreement was further amended to set Globamatrix’s 2004 minimum purchase commitments at \$9.0 million. Under the original distribution agreement, Globamatrix had been required to

purchase at least \$15.25 million of product in 2004. For each year after 2004 through and including 2011, Globamatrix is required to purchase an amount of product equal to 110% of the amount of product it was required to purchase in the prior year.

Product warranty claims. Our gross margins and profitability have been adversely affected from time to time by product quality claims. From 2000 to 2003, our warranty provision has averaged approximately 3.5% to 4% of net revenues. In 1998, our gross profit was reduced by \$4.0 million, which was related to product we produced for Sony. In 2002, we had certain quality claims with respect to products produced for Globamatrix, which reduced our gross profit by approximately \$1.5 million.

Restructuring costs. Based on lower revenue expectations, in December 2002, we transferred more of our product manufacturing from our Palo Alto manufacturing site to our Tempe and Dresden manufacturing facilities, which have lower cost structures. In addition, we implemented a reduction in force at our Palo Alto location in December 2002, and consolidated our Palo Alto facilities. As a result, we incurred a restructuring charge of \$2.6 million in 2002 relating to employee severance packages and the remaining rents due on excess facilities in Palo Alto that would no longer be occupied. Of the \$2.6 million, approximately \$0.2 million of the restructuring costs were paid in fiscal 2002. During the first quarter of 2003, we recorded a \$65,000 reduction to our restructuring accrual as a result of modifications to the severance packages of certain employees. In the second quarter of 2003, we implemented a reduction in force in our Tempe and Palo Alto locations. As a result, we incurred a charge and made cash payments of \$0.1 million relating to employee severance packages, which is recorded in cost of sales. During the fourth quarter of fiscal 2003, we implemented another reduction-in-force as well as closed our Tempe manufacturing facility; however, no restructuring charges were incurred in the fourth quarter.

Impairment charge for long-lived assets. During 2003, we experienced shortfalls in revenue compared to our budgeted and forecasted revenues. In addition, in the third quarter of 2003, we determined that due to reduced demand for our products, anticipated revenues through the remainder of 2003 and 2004 would be substantially below historical levels. As our U.S. operations have a higher operating cash break-even point compared to our Dresden operations, we believed that the lower than anticipated revenues indicated that an impairment analysis of the long-lived assets of our U.S. operations was necessary at September 28, 2003. Subsequently, in the fourth quarter of 2003, as a result of our decision to close the Tempe operation, we concluded that a further impairment analysis of the long-lived assets of the U.S. operation was necessary at December 31, 2003. Our evaluation concluded that an impairment charge was required to write down the carrying amount of our long-lived assets to their fair market values, of \$19.4 million and \$8.6 million for the periods ended September 28, 2003 and December 31, 2003, respectively.

Critical Accounting Policies and Estimates

The preparation of our consolidated financial statements requires us to make estimates and assumptions that affect the amounts of assets and liabilities we report, our disclosure of contingencies, and the amounts of revenue and expenses we report in our consolidated financial statements. If we used different judgments or different estimates, there might be material differences in the amount and timing of revenues and expenses we report. See Note 1 of our notes to consolidated financial statements for details of our accounting policies. The critical accounting policies, judgment and estimates, which we believe have the most significant effect on our financial statements, are set forth below:

- Revenue recognition;
- Allowances for doubtful accounts and warranties;
- Valuation of inventories;
- Assessment of the probability of the outcome of current litigation;
- Restructuring costs;
- Impairment charge for long-lived assets; and
- Accounting for income taxes.

Revenue recognition. We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been provided, the sale price is fixed or determinable, and collectibility is reasonably assured. Accordingly, we generally recognize revenue from product sales when the terms of sale transfer title and risk of loss, which occurs either upon shipment or upon receipt by customers. In connection with product sales, we make allowances for estimated returns and warranties. We adjust these allowances periodically to reflect our actual and anticipated experience. If any of these conditions to recognize revenue are not met, we defer revenue recognition.

Allowances for doubtful accounts and warranties. We establish allowances for doubtful accounts and warranties for specifically identified, as well as anticipated, doubtful accounts and warranty claims based on credit profiles of our customers, current economic trends, contractual terms and conditions, and historical payment and warranty experience. As of December 31, 2002, our consolidated balance sheet included allowances for doubtful accounts of \$0.6 million and \$2.1 million for warranties. As of December 31, 2003, our consolidated balance sheet included allowances for doubtful accounts of \$0.8 million and \$1.9 million for warranties. During 2001, 2002 and 2003, we recorded warranty costs of \$3.9 million, \$2.2 million and \$2.5 million, respectively. Bad debt expenses were \$0.4 million, \$0.3 million and \$0.3 million during 2001, 2002 and 2003, respectively. If our actual bad debt and warranty costs differ from estimates or we adjust our estimates in future periods, our operating results, cash flows and financial position could be materially adversely affected.

Valuation of inventories. We state inventories at the lower of cost or market. We establish provisions for excess and obsolete inventories after periodic evaluation of historical sales, current economic trends, forecasted sales, predicted lifecycle and current inventory levels. During 2001, 2002 and 2003, we charged \$1.1 million, \$0.7 million and \$0.9 million, respectively against cost of sales for excess and obsolete inventories. If our actual experience of excess and obsolete inventories differs from estimates or we adjust our estimates, such forecasted sales and expected product lifecycle, our operating results, cash flows and financial position could be materially adversely affected.

Assessment of the probability of the outcome of current litigation. In the ordinary course of business, we have periodically become engaged in litigation principally as a result of disputes with customers of our architectural products. We have relied upon insurance coverage to fund the defense of these actions and significant portions of the settlements that were reached. Based on our review of pending litigation, we record accruals for loss contingencies when we believe that a liability is probable of being incurred and we can reasonably estimate the amount of our share of the loss. In connection with recent settlements related to sales of architectural products, we have been advised by some of our insurers that they have reserved the right, to proceed against us to recoup a portion or all of the settlements paid to plaintiffs.

Restructuring costs. We have recorded reserves/accruals for restructuring costs related to the restructuring of operations. The restructuring reserves include payments to employees for severance, termination fees associated with leases and other contracts, and other costs related to the closure of facilities. After the adoption of Statement of Financial Accounting Standards ("SFAS") No. 146 on January 1, 2003, the reserves have been recorded when management has approved a plan to restructure operations and a liability has been incurred rather than the date upon which management has approved and announced a plan. The restructuring reserves are based upon management estimates at the time they are recorded. These estimates can change depending upon changes in facts and circumstances subsequent to the date the original liability was recorded. Accruals for facility leases under which we ceased using the benefits conveyed to us under the lease may change if market conditions for subleases change or if we later negotiate a termination of the lease. Prior to the adoption of SFAS 146, restructuring reserves were recorded at the time we announced a plan to exit certain activities and were based on estimates of the costs and length of time to exit those activities. See Note 13 of the Notes to the Consolidated Financial Statements for a complete discussion of our restructuring actions and all related restructuring reserves by type as of December 31, 2003.

Valuation of long-lived assets. We assess the impairment of long-lived assets if events or changes in circumstances indicate that the carrying value may not be recoverable. Factors that could trigger an impairment review include the following: (i) significant negative industry or economic trends; (ii) exiting an activity in conjunction with a restructuring of operations; (iii) current, historical or projected losses that demonstrate continuing losses associated with an asset; or (iv) a significant decline in our market capitalization, for an extended period of time, relative to net book value. When we determine that there is an indicator that the carrying value of long-lived assets may not be recoverable, we measure impairment based on estimates of future cash flows. These estimates include assumptions about future conditions such as future revenues, gross margins, operating expenses within our company, the fair values of certain assets based on appraisals, and industry trends.

Accounting for income taxes. In preparing our consolidated financial statements, we estimate our income taxes for each of the jurisdictions in which we operate, including Germany. We include differences between our deferred tax assets, such as net operating loss carry forwards, and tax liabilities in our consolidated balance sheet. We must then assess the likelihood that our deferred tax assets will be recovered from future taxable income, and to the extent we believe that recovery is not likely, we must establish a valuation allowance. To the extent we establish a valuation allowance or increase this allowance in any period, we must include an expense within the tax provision in our statement of operations. To date, we have recorded a full allowance against our deferred tax assets. The valuation allowance was \$14.7 million as of December 31, 2002, and \$29.5 million at December 31, 2003, which fully reserved our net deferred tax assets related to temporary differences, net operating loss carry forwards and other tax credits. Future income tax liabilities may be reduced to the extent permitted under federal and applicable state income tax laws, when the future tax benefit can be utilized by applying it against future income.

Significant management judgment is required in determining our provisions for income taxes, our deferred tax assets and liabilities and our future taxable income for purposes of assessing our ability to utilize any future tax benefit from our deferred tax assets.

If actual results differ from these estimates or we adjust these estimates in future periods, our financial position, cash flows and results of operations could be materially affected.

Results of Operations

The following table sets forth our results of operations expressed as a percentage of total revenues:

	Year-Ended December 31,				
	1999	2000	2001	2002	2003
Net Revenues:					
Automotive glass.....	35.7 %	23.7 %	45.0 %	37.4 %	43.6 %
Electronic display.....	29.3	55.9	35.8	38.6	35.7
Architectural.....	35.0	20.4	19.2	24.0	20.7
Total net revenues.....	100.0	100.0	100.0	100.0	100.0
Cost of sales.....	74.6	80.9	72.5	72.2	86.1
Gross profit.....	25.4	19.1	27.5	27.8	13.9
Research and development.....	9.6	7.9	6.6	11.2	12.3
Selling, general and administrative.....	15.9	14.8	13.3	18.1	25.0
Legal settlement.....	0.9	0.6	--	--	--
Restructuring costs.....	--	--	--	3.8	--
Impairment charge for long-lived assets.....	--	--	--	--	50.8
Total operating expenses.....	26.4	23.3	19.9	33.1	88.1
Income (loss) from operations.....	(1.0)	(4.2)	7.6	(5.3)	(74.2)
Interest expense.....	(2.5)	(3.3)	(3.5)	(2.5)	(2.9)
Other income (expense), net.....	0.1	0.4	1.7	1.6	0.8
Income (loss) before provision (benefit) for income taxes.....	-- (3.4)	-- (7.1)	-- 5.8	-- (6.2)	-- (76.3)
Provision for (benefit from) income taxes.....	--	0.1	0.2	(0.1)	1.3
Net income (loss).....	<u>(3.4)%</u>	<u>(7.2)%</u>	<u>5.6 %</u>	<u>(6.1)%</u>	<u>(77.6)%</u>

Results of Operations: Years Ended December 31, 2001, 2002 and 2003

Net revenues. Our net revenues for the years ended December 31, 2003, 2002 and 2001 were \$53.3 million, \$68.8 million, and \$83.0 million, respectively. Net revenues for 2003 decreased by \$15.5 million, or 22.5% from 2002, and net revenues for 2002 decreased by \$14.2 million, or 17.1% from 2001.

Revenues by segment:

Automotive:

	2001	Percent Change	2002	Percent Change	2003
	(in thousands, except percent changes)				
Net revenue	\$ 37,385	(31) %	\$ 25,697	(10) %	\$ 23,245
As a percentage of total net revenues	45 %		37 %		44 %

The decline in our automotive sales from 2001 to 2003 was due to reductions in our selling prices as a result of increased competition from coated glass manufacturers, and lower sales volume as a result of a slowdown in sales by several European automobile manufacturers to whom we sell our products. For the foreseeable future, we expect to have on-going competition from glass manufacturers that utilize the direct-to-glass sputtering process as an alternative solution to our coated film products.

Electronic Displays:

	2001	Percent Change	2002	Percent Change	2003
	(in thousands, except percent changes)				
Net revenue	\$ 29,691	(11) %	\$ 26,555	(28) %	\$ 19,019
As a percentage of total net revenues	36 %		39 %		36 %

Our sales to the electronic display market have declined in each year from 2001 to 2003, primarily due to lower demand for cathode ray tube, or "CRT", monitors as a result of technological changes in the market. The decrease in our electronic display revenues resulted primarily from a decrease in revenues from CRT film products. Revenues from CRT film products decreased by \$6.7 million, or 60%, from \$12.3 million in 2002 to \$5.6 million in 2003. Revenues from CRT film products in 2002 decreased by \$8.1 million, or 60%, from \$20.4 million in 2001. The decline in sales of our CRT film products was primarily due to lower selling prices and lower unit volumes, which we believe resulted from the decline of CRT technology as the primary technology for computer monitors. Mitsubishi Electric is the primary CRT manufacturer that buys our anti-reflective, or "AR" film, and it ceased production of the 17-inch AR product in the third quarter of 2003. We expect to continue production of AR product in the 22-inch and 19-inch sizes for Mitsubishi Electric. However, we expect the combined unit volumes of our 22-inch and 19-inch film products to be significantly less than the volumes previously sold for the 17-inch product. The decline in our CRT business was partially offset by an increase in sales of our reflective film products used in liquid crystal displays, or "LCDs", which provide backlighting for laptop computers, and our plasma display film product, or "PDPs", which provides electronic and infrared shielding for the PDP market. Revenues from these products increased to \$9.3 million in 2003 from \$7.4 million in 2002, and \$3.2 million in 2001. If the flat display and other electronic display markets in which we sell our products do not recover or if they experience further slowdowns in the future, it could cause revenues from our electronic display products will decrease further.

Architectural:

	2001	Percent Change	2002	Percent Change	2003
	(in thousands, except percent changes)				
Net revenue	\$ 15,900	4 %	\$ 16,507	(33) %	\$ 11,062
As a percentage of total net revenues	19 %		24 %		21 %

The decrease in our sales to the architectural market in 2003 from 2002 was primarily attributable to a reduction in orders of our Heat Mirror® product from several architectural customers, and the loss of a major architectural customer in the U.S. Our sales to the architectural market increased in 2002 from 2001 primarily as a result of additional manufacturing capacity that had been previously dedicated to the manufacture of products for the automobile market in prior years.

Cost of sales. Cost of sales consists primarily of materials and subcontractor services, labor and manufacturing overhead.

	2001	Percent Change	2002	Percent Change	2003
	(in thousands, except percent changes)				
Total cost of goods sold	\$ 60,148	(18) %	\$ 49,614	(7) %	\$ 45,914
As a percentage of total net revenues	72 %		72 %		86 %

Facility costs, depreciation expense and labor costs comprise the majority of our manufacturing expenses, and these costs are relatively fixed and do not fluctuate proportionately with net revenues. As a result of these fixed costs, the increase in cost of sales as a percentage of total net revenues was primarily the result of lower revenues in 2003 as compared to 2002. In 2003, we also recorded inventory adjustments of approximately \$1.0 million as a result of higher than expected yield losses by our outside converters. In addition, we recorded approximately \$0.3 million of product transition costs, which were the result of the transition of certain products from our United States manufacturing locations to our Dresden facility. Cost of sales in 2002, as a percentage of total net revenues, decreased slightly from 2001. The higher costs in 2001 were primarily due to variable manufacturing costs associated with higher revenues in 2001. The slight improvement in cost of sales as a percentage of total net revenues in 2002 from 2001 was attributable to improved manufacturing yields in our Palo Alto, Tempe and Dresden facilities during 2002. The improvement in the cost of sales as a percentage was also due to producing a greater portion of our products at our Dresden plant, which generally has had lower manufacturing costs than the Company's United States facilities as a result of lower payroll and operating expenses, as well as lower depreciation charges. Depreciation charges are lower for Germany due to the grants and investment allowances for plant and equipment provided to us by the Saxony government; the grants and incentives are recorded as reductions of property and equipment costs, carrying a lower depreciable base. Additionally, in 2002 we implemented a program to recover expended precious metals used in production, which resulted in a \$0.5 million reduction in material costs in 2002 as compared to 2001.

Gross profit and gross margin.

	<u>2001</u>	<u>Percent Change</u>	<u>2002</u>	<u>Percent Change</u>	<u>2003</u>
	(in thousands, except percent changes)				
Gross profit	\$ 22,828	(16) %	\$ 19,145	(61) %	\$ 7,412
As a percentage of total net revenues	28 %		28 %		14 %

Our gross margin decreased in 2003 from 2002 primarily as a result of lower revenues in each of our market segments, relatively fixed manufacturing costs, higher than anticipated yield losses by outside converters and product transition costs. The decrease in our gross profit in 2002 from 2001 was due to decreased revenue from the automotive and electronic display markets, which was partially offset by a higher percentage of revenue generated by our Dresden plant with its lower cost base, a reduction in warranty claims, and a program implemented in 2002 to recover precious metals expended during production.

Operating expenses

Research and development.

	<u>2001</u>	<u>Percent Change</u>	<u>2002</u>	<u>Percent Change</u>	<u>2003</u>
	(in thousands, except percent changes)				
Research and development	\$ 5,456	41 %	\$ 7,685	(13) %	\$ 6,714
As a percentage of total net revenues	7 %		11 %		13 %

Our research and development spending decreased in 2003 from 2002 primarily due to lower labor and occupancy costs, as a result of restructuring and cost control measures, which were partially offset by an increase in materials that were used in on-going research and development activities. The increase in 2003 in research and development expenses as a percentage of total net revenues was the result of lower revenues in 2003 as compared to 2002. The increase in our research and development spending in 2002 as compared to 2001 was primarily attributable to the costs associated with an increase in on-going research and development activities in the U.S. and \$0.3 million of development costs incurred in our Dresden facility to qualify PM8 and PM9 for the production of Heat Mirror products.

Selling, general and administrative. Selling, general and administrative expenses consist primarily of corporate and administrative overhead, selling commissions, advertising costs and occupancy costs.

	<u>2001</u>	<u>Percent Change</u>	<u>2002</u>	<u>Percent Change</u>	<u>2003</u>
	(in thousands, except percent changes)				
Selling, general and administrative	\$ 11,036	13 %	\$ 12,450	-	\$ 12,348
As a percentage of total net revenues	13 %		18 %		23 %

Our selling, general and administrative expenses were relatively flat in 2003 as compared to 2002. As a percentage of total net revenues, selling, general and administrative expenses increased in 2003 primarily as a result of lower revenues in 2003 as compared to 2002. In 2003, we also incurred an increase of \$0.4 million in outside services, a charge of \$0.2 million to forgive an employee loan and an increase of \$0.1 million in consulting fees. Selling, general and administrative expenses in 2002 included \$0.5 million in severance payments and \$0.3 million in employment compensation costs resulting from reduced headcount from 2002. The increase in selling, general and administrative expenses in 2002 as compared to 2001 was mainly the result of increased outside professional fees resulting from litigation defense and the evaluation of a potential acquisition target. The increase in costs was partially offset by a reduction in our labor costs resulting from reduced headcount from 2001.

Impairment charge for long-lived assets.

	<u>2001</u>	<u>Percent Change</u>	<u>2002</u>	<u>Percent Change</u>	<u>2003</u>
	(in thousands, except percent changes)				
Impairment charge for long-lived assets	\$ -	-	\$ -	-	\$ 27,990
As a percentage of total net revenues	-	%	-	%	52 %

During 2003, we experienced shortfalls in revenue compared to our budgeted and forecast revenues. In addition, in the third quarter of 2003, we determined that, due to reduced demand for our products, anticipated revenues through the remainder of 2003 and 2004 would be substantially below expected as well as historical levels. We believed that the reduced demand for our products was caused by the decline in personal computer sales worldwide, competition from alternative technologies in the automotive glass

segment, as well as declines in certain residential and commercial construction markets as a result of the economic recession in the U.S. As our U.S. operations have a higher operating cash break-even point compared to our Dresden operations, we believed that the lower than anticipated revenues indicated that an impairment analysis of the assets of our U.S. operations was necessary at September 28, 2003. As a result of our decision to close the Tempe operations in the fourth quarter, we concluded that a further impairment analysis of the long-lived assets of the U.S. operations was necessary at December 31, 2003. We, therefore, performed an evaluation of the recoverability of long-lived assets related to the U.S. business at September 28, 2003 and December 31, 2003 in accordance with the Statement of Financial Accounting Standards (“SFAS”) No. 144, “Accounting for the Impairment or Disposal of Long-Lived Assets”. For long-lived assets to be held and used, the determination of recoverability is based on an estimate of undiscounted cash flows expected to result from the use and eventual disposition of the assets. Our evaluation concluded that the undiscounted expected future cash flows were less than the carrying values of these assets, and an impairment charge was required. The impairment charge represents the amount required to write-down long-lived assets to our best estimate of fair value. For long-lived assets to be disposed of by sale or abandonment, principally the long-lived assets located at the Tempe operation, the impairment loss is estimated as the excess of the carrying value of the assets over fair value. As a result of our assessment we recorded a non-cash, impairment charge of \$19.4 million and \$8.6 million for the periods ended September 28, 2003 and December 31, 2003, respectively. The factors considered by us in performing this assessment included current operating results, trends, and prospects, the closure of our Tempe operation, as well as the effects of obsolescence, demand, competition, and other economic factors.

Restructuring.

	2001	Percent Change	2002	Percent Change	2003
	(in thousands, except percent changes)				
Restructuring costs	\$ -	-	\$ 2,624	(102) %	\$ (65)
As a percentage of total net revenues	-	%	4	%	-

We incurred restructuring costs of \$2.6 million during 2002 as a result of management's decision to reduce our workforce, consolidate our Palo Alto facilities and shift a greater percentage of our operations to our Tempe and Dresden manufacturing facilities. The restructuring charges in 2002 primarily reflected the recognition of the remaining lease expense in the amount of \$2.2 million associated with certain buildings we vacated in 2003 and severance packages of \$0.4 million. In 2003, we recorded an accounting adjustment of \$65,000 as a result of modifications to the severance packages of certain employees.

Income (loss) from operations.

	2001	Percent Change	2002	Percent Change	2003
	(in thousands, except percent changes)				
Income (loss) from operations	\$ 6,336	(157) %	\$ (3,614)	995 %	\$ (39,575)
As a percentage of total net revenues	8	%	(5)	%	(74)

Loss from operations in 2003 increased over the loss from operations in 2002 primarily due to an impairment charge on long-lived assets of \$19.4 million and \$8.6 million in the third and fourth quarters of 2003, respectively. The higher loss was also attributable to lower revenues, which were partially offset by lower research and development expenses. The operating loss we incurred in 2002 as compared to the operating income realized in 2001 was due to lower revenues in 2002, increased research and development costs, higher outside professional fees and restructuring charges, which were partially offset by reduced start-up costs from our Dresden operations, improved manufacturing yields, lower warranty claims, lower labor costs and the recovery of precious metals expended during production.

Interest expense, net.

	2001	Percent Change	2002	Percent Change	2003
	(in thousands, except percent changes)				
Interest expense, net	\$ (2,872)	(40) %	\$ (1,734)	(8) %	\$ (1,590)
As a percentage of total net revenues	(3)	%	(3)	%	(3)

The reduction in interest expense in 2003 as compared to 2002 was primarily attributable to lower interest rates. The reduction in interest expense in 2002 from 2001 was primarily attributable to the reduction of our overall debt, including our line of credit, by \$9.0 million from \$25.8 million at December 31, 2001, to \$16.8 million at December 31, 2002, and lower interest rates.

Costs of warrants issued.

	2001		Percent Change		2002		Percent Change		2003			
	(in thousands, except percent changes)											
Costs of warrants issued	\$	-		-	%	\$	-		-	%	\$	(865)
As a percentage of total net revenues		-	%				-	%				(2) %

Warrants issued in connection with the Letter of Intent

In connection with the November 11, 2003 Letter of Intent signed between Needham & Company, Inc., or Needham, and us outlining the proposed debt guarantee and equity financing we issued a warrant for 1,254,235 shares of common stock, representing 10% of the outstanding common stock of Southwall, exercisable at \$0.01 per share.

The warrant was valued by us at \$0.1 million and the amount was recorded as a non-operating expense. This warrant terminated upon signing of definitive documentation with Needham on December 18, 2003.

Warrants issued in connection with the investment agreement

In accordance with the investment agreement warrants were to be issued to the Investors on the closing of each guarantee and equity tranche. However, the terms of the investment agreement were such that the Investors were entitled to receive the 752,892 warrants associated with the second tranche of equity regardless of whether the second equity closing occurred. This term was included as further incentive for the Investors to enter into definitive agreements. Because we had an enforceable obligation to issue the warrants and because the terms of the warrant were known as of the date of the investor agreement, the warrants are considered issued for accounting purposes as of December 18, 2003.

Because they were issued as an incentive to enter into definitive agreements for transactions to which the Investors are not committed we determined that the value of the warrants should be recorded as a non-operating expense. We determined the value of the warrants to be \$0.3 million.

The investment agreement also included terms that required us to issue additional warrants to the Investors if, as part of the restructuring efforts, we issued any equity instruments, notes or other debt instruments to any creditor, landlord, employee, director, agent or consultant.

Following the issuance of equity instruments we are required to issue to each of the Investors warrants in such amounts as would allow the Investors to maintain their aggregate ownership percentage (on a fully-diluted basis) as if such issuance had not occurred. Such warrants represent anti-dilution protection for the Investor and are therefore not valued as a stand-alone instrument.

Following note or debt issuances to creditors we are required to issue additional warrants to each of the Investors representing the right to purchase that number of shares of common stock equal to the product of (x) 1.25 and (y) the original principal amount of such note or debt instrument. Such warrants represent penalties for our failing to eliminate obligations to creditors, and are regarded as issued for accounting purposes as of the date of the agreement triggering legal entitlement.

In December 2003, additional warrants totaling 409,246 were triggered by note or debt issuances. We determined the value of the warrants to be \$0.2 million. The fair value of the warrants was recorded as a non-operating expense.

Warrants issued in connection with the guarantee from Needham

In connection with the guarantee from Needham and as additional incentive to complete the financing closings, as contemplated in the investment agreement, we issued warrants for 941,115 shares of common stock. We have determined the value of the guarantee and warrants at \$0.1 million and \$0.4 million, respectively.

We recorded the amount of the warrant value equal to the fair value of the guarantee, \$0.1 million, as debt issuance costs to be amortized as interest expense over the life of our line of credit with our senior lender. The residual value of the warrants, \$0.3 million, is recorded as a non-operating expense, because they represent an incentive to enter into definitive agreements for transactions to which Needham is not committed.

Other income, net. Other income, net includes interest income, sublease income and foreign exchange transaction gains and losses.

	2001	Percent Change	2002	Percent Change	2003
	(in thousands, except percent changes)				
Other income, net	\$ 1,385	(23) %	\$ 1,070	(61) %	\$ 419
As a percentage of total net revenues	2 %		2 %		1 %

Some of our transactions with foreign suppliers are denominated in foreign currencies, principally the Japanese yen. As exchange rates fluctuate relative to the U.S. dollar, exchange gains and losses occur. The reduction in other income in 2003 from 2002 was primarily attributable to a decrease of \$0.3 million in foreign currency gains, and a decrease of sublease income from \$0.4 million in 2002 to nil in 2003. The reduction in other income in 2002 from 2001 was due to a decrease of \$0.4 million in foreign currency gains and various tax and insurance refunds received in 2001 totaling \$0.6 million that did not recur in 2002.

Income (loss) before provision for income taxes.

	2001	Percent Change	2002	Percent Change	2003
	(in thousands, except percent changes)				
Income (loss) before provision for income	\$ 4,849	(188) %	\$ (4,278)	873 %	\$ (41,611)
As a percentage of total net revenues	6 %		(6) %		(78) %

The pre-tax loss in 2003 increased over the pre-tax loss incurred in 2002, due to the impairment charge on long-lived assets, lower revenues, a non-cash charge for warrants issued in conjunction with the financing and related transactions, lower sublease income, and lower foreign currency gains, which were partially offset by lower research and development expenses and lower interest expense. The pre-tax loss we incurred in 2002 compared to the pre-tax income realized in 2001 was due to lower revenues in 2002, restructuring charges, increased research and development costs, higher outside professional fees, and restructuring charges which were partially offset by reduced start-up costs from our Dresden operations, improved manufacturing yields, lower warranty claims, lower labor costs, lower interest expense and the recovery of precious metals expended during production.

Provision (benefit from) income taxes.

	2001	Percent Change	2002	Percent Change	2003
	(in thousands, except percent changes)				
Provision for (benefit from) income taxes	\$ 214	(141) %	\$ (87)	(883) %	\$ 681
As a percentage of total net revenues	-	%	-	%	1 %

The increase in the provision for income taxes in 2003 from 2002 was primarily due to a provision to accrue foreign income tax of \$0.6 million during 2003 for our German operation. In 2003, we fully utilized our operating loss carryforward for German statutory taxes purposes, and as a result, we expect to incur tax obligations related to our Dresden plant for the foreseeable future based on expected continuing profitability of our German operations on a stand-alone basis. During 2002 the Federal government enacted legislation that established a tax holiday on alternative minimum tax obligations for 2001 and 2002 for which we received a refund during the second quarter of 2002. The benefit from income taxes realized in 2002 resulted from the reversal of an accrual for alternative minimum tax for 2001 and a refund during the second quarter from the Internal Revenue Service for our 2002 alternative minimum tax payment, and we were able to use an operating loss carry-forward to offset fully the federal income taxes incurred during the period.

Liquidity and capital resources

Liquidity

Our principal liquidity requirements are for working capital, consisting primarily of accounts receivable and inventories. We believe that because of the relatively long production cycle of certain of our products, our inventories will continue to represent a significant portion of our working capital.

We have prepared our consolidated financial statements assuming we will continue as a going concern and meet our obligations as they become due. We incurred a net loss and negative cash flows from operations in 2002 and 2003, and expect to incur net losses through at least the third quarter of 2004. In the second quarter of 2003, we entered into factoring agreements with our senior lender that provide for a credit facility up to \$10.0 million, subject to certain restrictions in the borrowing base based on eligibility of receivables. In the fourth quarter of 2003, we amended the factoring agreements to provide for a credit facility of up to \$7.0 million, subject to the same restrictions in borrowing capacity. The amendment to our credit facility was made following an agreement between Needham &

Company, Inc., our senior lender, and ourselves that enabled us to borrow up to \$3.0 million for working capital purposes pursuant to a separate credit facility, in addition to the \$7.0 million credit facility. At December 31, 2003, we were not in compliance with the minimum tangible net worth covenant and the current ratio covenants set forth in the factoring agreements, and, therefore, were in default under these agreements. We have reached an agreement with our senior lender wherein they have agreed to forbear until May 5, 2004 from exercising the rights and remedies available to them as a result of the default condition. The current factoring agreements and separate \$3.0 million credit facility will expire on May 5, 2004. We are in discussions with potential lenders regarding establishing a new credit facility. We cannot provide any assurance that alternative sources of financing will be available at all or on terms acceptable to us. Our ability to enter into a new facility or to raise additional funds may be adversely affected by a number of factors relating to us, as well as factors beyond our control. If we are unable to put in place a new credit facility or obtain additional financing, we may be unable to satisfactorily meet all of our cash commitments required to fully implement our business plans. These factors together with our working capital position and our significant debt service and other contractual obligations at December 31, 2003, raise substantial doubt about our ability to continue as a going concern.

In December 2002, we restructured our operations to reduce our cost structure by reducing our work force in Palo Alto and vacating excess facilities after consolidating our operations in Palo Alto. These actions are expected to continue to adversely affect our operating cash flows until our lease commitments for the excess facilities expire in December 2004. Also, during the first quarter of 2004 we agreed to new payment terms with all of our major creditors and vendors, which extended or reduced our payment obligations (see Note 14 of our notes to the consolidated financial statements – Subsequent Events).

Our cash and cash equivalents decreased by \$0.8 million from \$2.0 million at December 31, 2002 to \$1.2 million at December 31, 2003. Cash used in operating activities increased by \$0.2 million from \$2.8 million used in operations in 2002, to \$3.0 million used in operations in 2003. The increase in cash used in operating activities during 2003 was primarily the result of our net loss for the year, and a decrease in payables. Cash used in investing activities decreased by \$3.2 million from \$6.0 million in 2002 to \$2.8 million used in investing activities in 2003. The decrease in cash used in investing activities was primarily due to decreased capital expenditures of \$4.3 million, from \$7.1 million in 2002, to \$2.8 million in 2003. Cash from financing activities decreased by \$2.2 million from \$7.7 million provided by financing activities in 2002, to \$5.5 million generated in 2003. The decrease was primarily attributable to the effect of cash generated by a follow-on public offering in 2002, and less cash received through the exercise of employee stock options, which were partially offset by additional borrowings from our line of credit during 2003, and a decrease in principal payments on term debt.

We entered into an agreement with the Saxony government in May 1999 under which we receive investment grants. As of December 31, 2003, we had received \$7.9 million of the grants and accounted for these grants by applying the proceeds received to reduce the cost of our fixed assets of our Dresden manufacturing facility. If we fail to meet certain requirements in connection with these grants, the Saxony government has the right to demand repayment of the grants. (Additionally, we have received \$0.65 million of Saxony government grants that as of December 31, 2003 were recorded as an advance until we earn the grant through future expenditures. The total annual amount of investment grants and investment allowances that we are entitled to seek varies from year to year based upon the amount of our capital expenditures that meet certain requirements of the Saxony government. Generally, we are not eligible to seek total investment grants and allowances for any year in excess of 33% of our eligible capital expenditures for that year. We expect to continue to finance a portion of our capital expenditures in Dresden with additional grants from the Saxony government and additional loans from German banks, some of which may be guaranteed by the Saxony government. However, we cannot guarantee that we will be eligible for or will receive additional grants in the future from the Saxony government.

Borrowing arrangements

At December 31, 2002, we were not in compliance with certain of the covenants of the guarantee by Teijin of our Japanese bank loan. Teijin and the Japanese bank waived the defaults under Teijin's guarantee of the loan that may exist for any measurement period through and including September 30, 2003 arising out of our failure to comply with the minimum quick ratio, tangible net worth and maximum debt/tangible net worth covenants. Teijin previously guaranteed our outstanding debt owed to UFJ Bank Limited (formerly known as Sanwa Bank Limited). On November 5, 2003, we defaulted on this debt and Teijin honored its guarantee by satisfying the obligation. Under the terms of Teijin's guarantee, we were obligated to immediately repay the amounts paid by Teijin. As part of the restructuring plan, we entered into a guaranteed Loan Agreement with Teijin to satisfy Teijin's claim. The agreement included a payment schedule that spreads the payments over a period of four years until 2008. The obligations owed to Teijin will not accrue interest if paid according to the payment schedule. Our obligations to Teijin are guaranteed by our subsidiary, Southwall Europe GmbH. (See Note 4 – Term Debt and Note 14 – Subsequent Events).

Our borrowing arrangements with various German banks as of December 31, 2003 are described in Note 4 to our consolidated financial statements set forth herein. We are in compliance with all of the covenants of the German bank loans, and we have classified \$1.7 million and \$9.9 million outstanding under the German bank loans as a short-term liability and long-term liability, respectively, at December 31, 2003.

As of December 31, 2003, we were in default under a master sale-leaseback agreement with respect to two of its production machines. We had withheld lease payments in connection with a dispute with the leasing company, Matrix Funding Corporation. An agent purporting to act on behalf of the leasing company filed suit against us to recover the unpaid lease payments and the alleged residual value of the machines, totaling \$6.5 million in the aggregate. In February 2004, we reached a settlement agreement with the agent for \$2.0 million to be repaid over six years at a stepped rate of interest, and we returned the equipment in question to the plaintiffs (See Note 4 – Term Debt and Note 14 – Subsequent Events).

Equity transactions

On December 18, 2003, we entered into a definitive agreement for a new bank loan guarantee and equity-financing package of up to \$7.5 million from Needham & Company and affiliates, and Dolphin Direct Equity Partners, L.P, as further described above under “Overview – Recent Financing and Related Transactions”. The agreement enabled us to receive up to \$3.0 million in new borrowings under a new line of credit facility with PBF, supported by guarantees provided by Needham in two separate allotments of \$2.25 million and \$0.75 million. The \$3.0 million in new borrowings reduced the amount of availability under the factoring agreements we previously entered into with Pacific Business Funding to \$7.0 million. At December 31, 2003, we had borrowed \$2.25 million of the available amount. As further described above, on February 20, 2004, the investors also purchased \$4.5 million of convertible notes from us, which are convertible into shares of our preferred stock.

On July 8, 2002, we completed a follow-on public offering of 3,500,000 shares our common stock at a price of \$4.50 per share. On August 5, 2002, we sold an additional 307,300 shares at a price of \$4.50 per share, when our underwriters exercised a portion of their over allotment option. Our net proceeds to from the offering and the over allotment option, after deducting underwriting discounts and commission and offering expenses, were approximately \$15.1 million. Additionally, the exercise of stock options and employee purchases under our employee stock purchase plan generated cash proceeds to us of \$1.9 million during 2002.

Capital expenditures

We spent approximately \$7.1 million in capital expenditures in 2002, which consisted of approximately \$3.2 million in progress payments for PM 10 in Dresden, approximately \$1.3 million for an enterprise resource planning system, and approximately \$1.5 million to maintain and upgrade our production facilities in Tempe and Dresden.

During 2003, we spent \$2.8 million in capital expenditures, which consisted of approximately \$1.4 million in progress payments for PM 10 in Dresden, approximately \$0.7 to complete the implementation of an enterprise resource planning system and \$0.3 million to upgrade our production facilities in Tempe and Palo Alto. We believe our capital expenditures in 2004 will be used primarily for maintenance of our production equipment and, therefore, we expect to incur minimal capital expenditures in 2004.

Our future payment obligations on our borrowings pursuant to our term debt, capital lease obligations, non-cancelable operating leases and other noncancelable contractual commitments are as follows (in thousands):

	Payments Due by Period				
	Total	1 Year	1 - 3 Year	4 - 5 Year	Greater Than 5 Year
	(in thousands)				
Contractual Obligations					
Term debt (1).....	\$ 15,600	\$ 1,947	3,150	\$ 2,480	\$ 8,023
Line of credit.....	6,844	6,844	--	--	--
Capital Lease Obligations.....	110	97	9	4	--
Operating Lease (2).....	4,058	2,256	1,780	11	11
Total Contractual Cash Obligations.....	<u>\$ 26,612</u>	<u>\$ 11,144</u>	<u>4,939</u>	<u>\$ 2,495</u>	<u>\$ 8,034</u>

The table reflects changes to future payment obligations resulting from amendments in the subsequent events period to our term debt and non-cancelable operating lease agreements negotiated as part of our restructuring plan.

- (1) Represents loan agreements with Teijin; Portfolio Financial Servicing Company, Bank of America and Lehman Brothers, and several German banks. (See Note 4 and Note 14 of notes to our consolidated financial statements.)

- (2) Represents the remaining rents owed on buildings we rent in Palo Alto and Tempe.

Voluntary delisting from Nasdaq

Effective March 26, 2004, we voluntarily delisted from Nasdaq and applied to begin trading on the pink sheets. Due to the structure of the transaction contemplated by the investment agreement, we were no longer in compliance with certain Nasdaq listing requirements. We felt that a voluntary delisting from Nasdaq and a move to the pink sheets would provide the best option to our shareholders by retaining liquidity in our common stock.

Recently issued accounting pronouncements

In January 2003, the Financial Accounting Standards Board ("FASB") issued FASB Interpretation No. 46, "Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51." FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN 46 is effective immediately for all new variable interest entities created or acquired after January 31, 2003. For variable interest entities created or acquired prior to February 1, 2003, the FASB recently delayed the required implementation date such that the provisions of FIN 46 are required to be adopted no later than the end of the first reporting period that ends after March 15, 2004. The company believes that the adoption of this standard will have no material impact on its financial statements.

In April 2003, the FASB issued SFAS No. 149, "Amendment of Statement 133 on Derivative Instruments and Hedging Activities". SFAS 149 amends and clarifies accounting for derivative instruments and hedging activities under SFAS 133, "Accounting for Derivative Instruments and Hedging Activities". SFAS 149 provides guidance relating to decisions made (a) as part of the Derivatives Implementation Group process, (b) in connection with other FASB projects dealing with financial instruments and (c) regarding implementation issues raised in the application of the definition of a derivative and the characteristics of a derivative that contains financing components. SFAS 149 is effective for contracts entered into or modified and for hedging relationships designated after June 30, 2003. The adoption of SFAS 149 did not have a material impact on our financial condition or results of operations.

In May 2003, the FASB issued SFAS No. 150 "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity". SFAS 150 requires freestanding financial instruments such as mandatory redeemable shares, forward purchase contracts and written put options to be reported as liabilities by their issuers as well as related new disclosure requirements. The provisions of SFAS 150 are effective for instruments entered into or modified after May 31, 2003 and pre-existing instruments as of the beginning of the first interim period that commences after June 15, 2003. The adoption of SFAS 150 did not have a material impact on our financial condition or results of operations.

RISK FACTORS

Financial Risks

Our working capital position, financial commitments and historical performance raise substantial doubt about our ability to continue as a going concern.

We have prepared our consolidated financial statements assuming we will continue as a going concern and meet our obligations as they become due. We incurred a net loss and negative cash flows from operations in 2002 and 2003 and expect to incur net losses through the third quarter of 2004. These factors together with our working capital position and our significant debt service and other contractual obligations at December 31, 2003, raise substantial doubt about our ability to continue as a going concern without restoring profitable operations, generating cash flow from operating activities and obtaining additional financing. These and other factors related to our business during recent years, including the restatement in 2000 of our financial statements for prior periods, operating losses in 1998, 1999, 2000, 2002 and 2003, our past failure to comply with covenants in our financing agreements and our voluntary delisting from Nasdaq in March 2004 may make it difficult for us to secure the required additional borrowings on favorable terms or at all. We intend to seek additional borrowings or alternative sources of financing, however, difficulties in borrowing money or raising financing could have a material adverse effect on our operations, planned capital expenditures, ability to comply with the terms of government grants and our ability to continue as a going concern.

If we do not obtain stockholder approval of the proposed amendment to increase the number of shares that we have authorized for issuance, the amounts due under our outstanding convertible notes will accelerate, and we will likely not be able to repay the notes.

If we do not obtain stockholder approval of a proposed amendment to increase the number of shares that we are authorized to issue under our charter, we may be unable to meet our obligations to issue shares of capital stock under the investment agreement and amounts due under the convertible notes will accelerate. The approval of our stockholders is required to amend our charter, and we intend to seek such approval at a special meeting of our stockholders. There can be no assurance, however, that our stockholders will approve such amendment. Without the proceeds from the convertible notes, the amount of capital available to us for general working capital purposes will be severely limited and we will not be able to fund our operations, service our existing debt obligations or continue as a going concern. In the likely event we are unable to secure an alternative financing plan, we will become insolvent and be required to file for bankruptcy protection. Furthermore, there can be no assurances that we will not be sued by the holders of our options, warrants or convertible notes if we do not have enough authorized shares of common stock to make the required issuances if they seek to exercise or convert those securities, as applicable.

The proposed transaction with Needham & Company, Inc. may have a negative effect on our stock price, and may not be sufficient to allow us to continue as a going concern.

As a result of the consummation of the financing transactions in December 2003 and February 2004 with Needham, its affiliates and Dolphin, our shareholders suffered material dilution. As our largest stockholder and the guarantor of our line of credit, and holder of our convertible notes, Needham could prevent us from seeking additional borrowings or alternative sources of financing that we require for future operations or otherwise control the company in ways that might have a material adverse effect on the company or our stock price.

Covenants or defaults under our credit agreements may prevent us from borrowing or force us to curtail our operations.

As of December 31, 2003, we had total outstanding obligations under our credit agreements of \$15.9 million. Our inability to make timely payments of interest or principal under these facilities could materially adversely affect our ability to borrow money under existing credit facilities, to secure additional borrowings or to function as a going concern. Our current credit facilities contain financial covenants that will require us to meet certain financial performance targets and operating covenants that limit our discretion with respect to business matters. Among other things, these covenants restrict our ability to borrow additional money, create liens or other encumbrances, and make certain payments including dividends and capital expenditures. Many of these loans contain provisions that permit the lender to declare the loans immediately due if there is a material adverse change in our business. These credit facilities also contain events of default that could require us to pay off indebtedness before its maturity. In addition, our convertible notes issued to Needham and affiliates and Dolphin provide that they will accelerate to become due in 45 days if we fail to obtain approval of our stockholders to amend our charter to increase the number of shares that we are authorized to issue. At December 31, 2003 we were not in compliance with the minimum tangible net worth covenant and current ratio covenant set forth in the credit agreements in our factoring line of credit facility and subsequently were in default. The restrictions imposed by these credit facilities or the failure of lenders to advance funds under these facilities could force us to curtail our operations or have a material adverse effect on our liquidity.

Our ability to borrow is limited by the nature of our equipment and some of our accounts receivable.

Our equipment is custom designed for a special purpose. In addition, a large portion of our accounts receivable are from foreign sales, which are often more difficult to collect than domestic accounts receivable. As a result of the nature of our equipment and accounts receivable, lenders will generally allow us to borrow less against these items as collateral than they would for other types of equipment or domestic accounts receivable, or require us to provide additional credit enhancements.

If we default under our secured credit facilities and financing arrangements, the lenders could foreclose on the assets we have pledged to them requiring us to significantly curtail or even cease our operations.

In connection with our current borrowing facilities and financing arrangements, we have granted security interests in and liens on substantially all of our assets, including our production machines and our Dresden facility, to secure the loans. If our senior lenders were to repossess one or more of those machines, our ability to produce product would be materially impaired. Our revenues, gross margins and operating efficiency would also be materially adversely affected. At December 3, 2003, we were not in compliance with the minimum tangible net worth covenant and current ratio covenant set forth in the credit agreements in our factoring line of credit facility governing our factoring line of credit facility. Our obligations under our secured credit facilities contain cross-default and cross-acceleration provisions and provisions that allow the lenders to declare the loans immediately due if there is a material adverse change in our business. If we default under the credit facilities or financing arrangements the lenders could declare all of the funds borrowed there under, together with all accrued interest, immediately due and payable. If we are unable to repay such indebtedness, the lenders could foreclose on the pledged assets. If the lenders foreclose on our assets, we would be forced to significantly curtail or even cease our operations.

Our quarterly revenue and operating results are volatile and difficult to predict. If we fail to meet the expectations of public market analysts or investors, the market price of our common stock may decrease significantly.

Our quarterly revenue and operating results have varied significantly in the past and will likely vary significantly in the future. Our revenue and operating results may fall below the expectations of securities analysts or investors in future periods. Our failure to meet these expectations would likely adversely affect the market price of our common stock.

Our quarterly revenue and operating results may vary depending on a number of factors, including:

- fluctuating customer demand, which is influenced by a number of factors, including market acceptance of our products and the products of our customers and end-users, changes in product mix, and the timing, cancellation or delay of customer orders and shipments;
- the timing of shipments of our products by us and by independent subcontractors to our customers;
- manufacturing and operational difficulties that may arise due to, among other things, quality control, capacity utilization of our production machines, unscheduled equipment maintenance, and the hiring and training of additional staff;
- our ability to introduce new products on a timely basis; and
- competition, including the introduction or announcement of new products by competitors, the adoption of competitive technologies by our customers, the addition of new production capacity by competitors and competitive pressures on prices of our products and those of our customers.

We expect to be subject to increased foreign currency risk in our international operations.

In 2003, approximately 34% of our revenues were denominated in euros, primarily related to sales from our Dresden operation, including sales to one of our largest customers, a European automotive glass manufacturer. In addition, other customers may request to make payments in foreign currencies. Also, certain transactions with foreign suppliers are denominated in foreign currencies, primarily Japanese Yen.

A strengthening in the dollar relative to the currencies of those countries in which we do business would increase the prices of our products as stated in those currencies and could hurt our sales in those countries. Significant fluctuations in the exchange rates

between the U.S. dollar and foreign currencies could cause us to lower our prices and thus reduce our profitability and cash flows. These fluctuations could also cause prospective customers to cancel or delay orders because of the increased relative cost of our products.

Our suppliers and subcontractors may impose more onerous payment terms on us.

As a result of our financial performance and voluntary delisting from Nasdaq, our suppliers and creditors may impose more onerous payment terms on us, which may have a material adverse effect on our financial performance and our liquidity. For example, one of our subcontractors has required us to provide it with a security interest in all of our inventory held by it and has limited the amount of unpaid orders we may have outstanding with it at any time.

Operational Risks

We depend on a small number of customers for nearly all of our sales, and the loss of a large customer could materially adversely affect our revenues or operating results.

Our ten largest customers accounted for approximately 85%, 84% and 84% of net sales in 2001, 2002 and 2003, respectively. We have contracts extending past 2004 with only two of these customers. We expect to continue to derive a significant portion of our net sales from this relatively small number of customers. Accordingly, the loss of a large customer could materially hurt our business, and the deferral or loss of anticipated orders from a large customer or a small number of customers could materially reduce our revenue and operating results in any period. Some of our largest automotive glass customers have used a technology—direct-to-glass sputtering—as an alternative to our window films, which in 2002 and 2003 resulted in a decrease in orders from these customers. The continued or expanded use of this technology by our automotive glass customers would have a material adverse effect on our results of operations and financial position.

We must continue to develop new products or enhance existing products on a timely basis to compete successfully in a rapidly changing marketplace.

Our future success depends upon our ability to introduce new products, improve existing products and processes to keep pace with technological and market developments, and to address the increasingly sophisticated and demanding needs of our customers, especially in the electronic display and automotive markets. Technological changes, process improvements, or operating improvements that could adversely affect us include:

- the development of competing technologies to our anti-reflective and silver reflector films for liquid crystal displays in the flat panel display industry;
- changes in the way coatings are applied to alternative substrates such as tri-acetate cellulose, or TAC;
- the development of new technologies that improve the manufacturing efficiency of our competitors;
- the development of new materials that improve the performance of products that could compete with our products; and
- improvements in the alternatives to the sputtering technology we use to produce our products, such as plasma enhanced chemical vapor deposition, or PECVD.

Our research and development efforts may not be successful in developing products in the time, or with the characteristics, necessary to meet customer needs. If we do not adapt to technological changes, or process or operating improvements, our competitive position, operations and prospects would be materially adversely affected.

Our ability to successfully identify suitable target companies and integrate acquired companies or technologies may affect our future growth.

A potential part of our continuing business strategy is to consider acquiring companies, products, and technologies that complement our current products, enhance our market coverage, technical capabilities or production capacity, or offer other growth opportunities. Our ability to successfully complete acquisitions requires that we identify suitable target companies, agree on acceptable terms, and obtain acquisition financing on acceptable terms. In connection with these acquisitions, we could incur debt, amortization expenses relating to identified intangibles, impairment charges relating to goodwill, or merger related charges, or could issue stock that would dilute our current shareholders' percentage of ownership. The success of any acquisitions will depend upon our ability to integrate

acquired operations, retain and motivate acquired personnel, and increase the customer base of the combined businesses. We cannot assure you that we will be able to accomplish all of these goals. Any future acquisitions would involve certain additional risks, including:

- difficulty integrating the purchased operations, technologies, or products;
- unanticipated costs, which would reduce our profitability;
- diversion of management's attention from our core business;
- potential entrance into markets in which we have limited or no prior experience; and
- potential loss of key employees, particularly those of the acquired business.

Failure to meet the volume requirements of our customers may result in a loss of business or contractual penalties.

Our long-term competitive position will depend to a significant extent on our manufacturing capacity. The failure to have sufficient capacity, to fully utilize capacity when needed or to successfully integrate and manage additional capacity in the future could adversely affect our relationships with customers and cause customers to buy similar products from our competitors if we are unable to meet their needs. For example, we believe that we lost substantial potential architectural products sales in 2001 because we did not have the capacity to manufacture the required amounts of products. Also, our failure to produce required amounts of products under some of our contracts will result in price reductions on future sales under such contracts or penalties under which we would be required to reimburse the customer for the full cost of any product not delivered in a timely manner, either of which would reduce our gross margins.

We depend on our OEM customers for the sale of our products.

We sell a substantial portion of our products to a relatively small number of original equipment manufacturers, or OEMs. The timing and amount of sales to these customers ultimately depend on sales levels and shipping schedules for the OEM products into which our products are incorporated. We have no control over the volume of products shipped by our OEM customers or shipping dates, and we cannot be certain that our OEM customers will continue to ship products that incorporate our products at current levels or at all. We currently have long-term contracts with only three of our OEM customers. Failure of our OEM customers to achieve significant sales of products incorporating our products and fluctuations in the timing and volume of such sales could be harmful to our business. Failure of these customers to inform us of changes in their production needs in a timely manner could also hinder our ability to effectively manage our business.

We rely upon our OEM customers for information relating to the development of new products so that we are able to meet end-user demands.

We rely on our OEM customers to inform us of opportunities to develop new products that serve end-user demands. If our OEM customers do not present us with market opportunities early enough for us to develop products to meet end-user needs in a timely fashion, or if the OEMs fail to anticipate end-user needs at all, we may fail to develop new products or modify our existing products for the end-user markets for our products. In addition, if our OEM customers fail to accurately anticipate end-user demands, we may spend resources on products that are not commercially successful.

We depend on a distributor for the sale of our after-market products.

We primarily use one independent distributor to sell our after-market products. We have a distribution agreement with Globamatrix Holdings Pte. Ltd., or Globamatrix, under which we granted an exclusive worldwide license to distribute our after-market applied film in the automotive and architectural glass markets. Failure of Globamatrix to achieve significant sales of products incorporating our products and fluctuations in the timing and volume of such sales could be harmful to our business. We believe that the success of our after-market products will continue to depend upon this distributor.

We face intense competition, which could affect our ability to increase our revenue, maintain our margins and increase our market share.

The market for each of our products is intensely competitive and we expect competition to increase in the future. Competitors vary in size and in the scope and breadth of the products they offer. We compete both with companies using technology similar to ours and companies using other technologies or developing improved technologies. Direct-to-glass sputtering represents the principal alternative technology to our sputter-coated film products. Direct-to-glass is a mature, well-known process for applying thin film coatings

directly to glass, which is used by some of our current and potential customers to produce products that compete with our products. This technology is commonly used to manufacture products that conserve energy in buildings and automobiles. Many of our current and potential competitors have significantly greater financial, technical, marketing and other resources than we have. In addition, many of our competitors have well-established relationships with our current and potential customers and have extensive knowledge of our industry.

We may not be able to expand our manufacturing capacity efficiently which could lead to lower gross margins.

Our newest production machine (PM 10) is at our Dresden manufacturing facility and began commercial production in the first quarter of 2003. During the processes of bringing PM 10 up to commercial production levels, we experienced decreased manufacturing yields and higher costs, which lowered our gross margins.

We are dependent on key suppliers of materials, which may prevent us from delivering product in a timely manner.

We manufacture all of our products using materials procured from third-party suppliers. We do not have long-term contracts with our third-party suppliers. Certain of the materials we require are obtained from a limited number of sources. Delays or reductions in product shipments could damage our relationships with customers. Further, a significant increase in the price of one or more of the materials used in our products could have a material adverse effect on our cost of goods sold and operating results.

We are dependent on a few qualified subcontractors to add properties to some of our products.

We rely on third-party subcontractors to add properties, such as adhesives, to some of our products. There are only a limited number of qualified subcontractors that can provide some of the services we require, and we do not have long-term contracts with any of those subcontractors. Qualifying alternative subcontractors could take a great deal of time or cause us to change product designs. The loss of a subcontractor could adversely affect our ability to meet our scheduled product deliveries to customers, which could damage our relationships with customers. If our subcontractors do not produce a quality product, our yield will decrease and our margins will be lower. Further, a significant increase in the price charged by one or more of our subcontractors could force us to raise prices on our products or lower our margins, which could have a material adverse effect on our operating results.

We are dependent on key suppliers of production machines, which may prevent us from delivering an acceptable product on a timely basis and limit our capacity for revenue growth.

Our production machines are large, complex and difficult to manufacture. It can take up to a year from the time we order a machine until it is delivered. Following delivery, it can take us, with the assistance of the manufacturer, up to six additional months to test and prepare the machine for commercial production. There are a very limited number of companies that are capable of manufacturing these machines. Our inability in the future to have new production machines manufactured and prepared for commercial production in a timely manner would prevent us from delivering product on a timely basis and limit our capacity for revenue growth.

Fluctuations or slowdowns in the overall electronic display industry have and may continue to adversely affect our revenues.

Our business depends in part on sales by manufacturers of products that include electronic displays. The markets for electronic display products are highly cyclical and have experienced periods of oversupply resulting in significantly reduced demand for our products. For example, due to the deteriorating economic environment, sales by flat cathode ray tube manufacturers decreased in 2002 and further in 2003, contributing to our electronic display product revenues declining by 11% 2002, and another 3% for 2003. Mitsubishi Electric is the only CRT manufacturer that buys our anti-reflective, or "AR", film and it has decided to consolidate all of the manufacturing of this product to Japan. In connection with that consolidation, Mitsubishi ceased production of the 17" AR product in its Mexico plant during the third quarter of 2003. We expect to continue to produce AR product in the 22" and 19" sizes for Mitsubishi Electric. We expect a further reduction in revenues of the AR product in succeeding years. If the flat display and other electronic display markets in which we sell our products do not recover or experience further slowdowns in the future, it could cause revenues from our electronic display products to decrease further.

Performance, reliability or quality problems with our products may cause our customers to reduce or cancel their orders.

We manufacture our products based on specific, technical requirements of each of our customers. We believe that future orders of our products will depend in part on our ability to maintain the performance, reliability and quality standards required by our customers. If our products have performance, reliability or quality problems, then we may experience:

- delays in collecting accounts receivable;

- higher manufacturing costs;
- additional warranty and service expenses; and
- reduced or cancelled orders.

For example, in 1998, our operating results were materially adversely affected by quality problems associated with the electronic display film produced by us for one of our largest customers.

If we fail to recruit and retain a significant number of qualified technical personnel we may not be able to develop, enhance and introduce our products on a timely basis, and our business will be harmed.

We require the services of a substantial number of qualified technical personnel. Intense competition and aggressive recruiting, as well as a high-level of employee mobility characterize the market for skilled technical personnel. These characteristics make it particularly difficult for us to attract and retain the qualified technical personnel we require. We have experienced, and we expect to continue to experience, difficulty in hiring and retaining highly skilled employees with appropriate technical qualifications. It is especially difficult for us to recruit qualified personnel to move to the location of our Palo Alto, California offices because of the high-cost of living. If we are unable to recruit and retain a sufficient number of qualified technical employees, we may not be able to complete the development of, or enhance, our products in a timely manner. As a result, our business may be harmed and our operating results may suffer.

We may be unable to attract or retain the other highly skilled employees that are necessary for the success of our business.

In addition to our dependence on our technical personnel, our success also depends on our continuing ability to attract and retain other highly skilled employees. We depend on the continued services of our senior management, particularly Thomas G. Hood, our President and Chief Executive Officer. We do not have employment contracts with any of our officers or key person life insurance covering any officer or employee. Our officers have technical and industry knowledge that cannot easily be replaced. Competition for similar personnel in our industry where we operate is intense. We have experienced, and we expect to continue to experience, difficulty in hiring and retaining highly skilled employees with appropriate qualifications. If we do not succeed in attracting or retaining the necessary personnel, our business could be adversely affected.

If we are unable to adequately protect our intellectual property, third parties may be able to duplicate our products or develop functionally equivalent or superior technology.

Our success depends in large part upon our proprietary technology. We rely on our know-how, as well as a combination of patent, trademark and trade secret protection, to establish and protect our intellectual property rights. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our products or to obtain and use information that we regard as proprietary. Policing unauthorized use of our products is difficult. Our means of protecting our proprietary rights may not be adequate. In addition, the laws of some foreign countries do not protect our proprietary rights to as great an extent as do the laws of the United States. In the next three years, one of our U.S. patents relating to our architectural products will expire. Expiration of these patents or our failure to adequately protect our proprietary rights may allow third parties to duplicate our products or develop functionally equivalent or superior technology. In addition, our competitors may independently develop similar technology or design around our proprietary intellectual property.

Our business is susceptible to numerous risks associated with international operations.

International revenues amounted to approximately 87%, 85%, and 89% of our net revenues during 2001, 2002 and 2003, respectively. The distance between the two locations of our manufacturing creates logistical and communications challenges. In addition, to achieve acceptance in international markets, our products must be modified to handle a variety of factors specific to each international market as well as local regulations. We may also be subject to a number of other risks associated with international business activities. These risks include:

- unexpected changes in and the burdens and costs of compliance with a variety of foreign laws and regulatory requirements;
- potentially adverse tax consequences; and
- global economic turbulence and political instability.

If we fail to comply with environmental regulations, our operations could be suspended.

We use hazardous chemicals in producing our products and have air and water emissions that require controls. As a result, we are subject to a variety of local, state and federal governmental regulations relating to the storage, discharge, handling, emission, generation, manufacture and disposal of toxic or other hazardous substances used to manufacture our products, compliance with which is expensive. Our failure to comply with current or future regulations could result in the imposition of substantial fines on us, suspension of production, alteration of our manufacturing processes, increased costs or cessation of operations.

We rely on our domestic sales representatives, without whom our architectural product sales may suffer.

We use independent sales representatives to promote our Heat Mirror products to architects in the United States. If some or all of our sales representatives experience financial difficulties, or otherwise become unable or unwilling to promote our products, our business could be harmed. These sales representatives could reduce or discontinue promotion of our products. They may not devote the resources necessary to provide effective marketing support to us. In addition, we depend upon the continued viability and financial resources of these representatives, many of which are small organizations with limited working capital. These representatives, in turn, depend substantially on general economic conditions and other factors affecting the markets for the products they promote. We believe that our success in this market will continue to depend upon these sales representatives.

We may experience unanticipated warranty or other claims with respect to our products which may lead to extensive litigation costs and expenses.

In the ordinary course of business, we have periodically become engaged in litigation principally as a result of disputes with customers of our architectural products. We have settled some of these suits and others are pending. We may become engaged in similar or other lawsuits in the future. Some of our products that have been the basis for lawsuits against us could be the basis for future lawsuits. An adverse outcome in the defense of a warranty or other claim could subject us to significant liabilities to third parties. Any litigation, regardless of the outcome, could be costly and require significant time and attention of key members of our management and technical personnel.

We may face extensive damages or litigation costs if our insurance carriers seek to have us indemnify them for settlements of past and outstanding litigation.

Several of our insurance carriers have reserved their rights to seek indemnification from us for substantial amounts paid to plaintiffs by the insurance carriers as part of settlements of litigation relating to our architectural products. Our insurance carriers in a case in which the plaintiff alleged we were responsible for defects in window products manufactured by others have advised us that they intend to seek reimbursement for settlement and defense costs. Any claims, with or without merit, could require significant time and attention of key members of our management and result in costly litigation.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Financing risk: Our exposure to market rate risk for changes in interest rates relates primarily to our term loans, specifically our factoring line of credit which bears an interest rate equal to 7% above the bank Base Rate (which was 4.0% at December 31, 2003) and is calculated based on the average daily balance of the accounts receivable against which we have borrowed, and our line of credit facility with our senior lender which bears an interest rate equal to 2.5% above the bank Prime Rate (which was 4.0% at December 31, 2003) and is calculated based on the average daily balance of the amounts we have borrowed. In addition, the interest rate on one of our German loans will be reset to the prevailing market rate in 2004 and another of our German loans will have its interest rate reset to the prevailing market rate in 2009. Fluctuations or changes in interest rates may adversely affect our expected interest expense. The effect of a 10% fluctuation in the interest rate on our factoring line of credit and our other line of credit would have had an effect of less than \$11,000 on our interest expense for 2003.

Investment risk We invest our excess cash in money market accounts and, by practice, limit the amount of exposure to any one institution. Investments in both fixed rate and floating rate interest earning instruments carry a degree of interest rate risk. Fixed rate securities may have their fair market value adversely affected due to a rise in interest rates, while floating rate securities may produce less income than expected if interest rates fall. The effect of a 10% fluctuation in the interest rate of any floating rate securities would have had an adverse effect of less than \$54,000 for 2003.

Foreign currency risk International revenues (defined as sales to customers located outside of the United States) accounted for approximately 89% of our total sales in 2003. Of this amount, approximately 39% was denominated in euros relating to sales from our Dresden operation. The other 61% of our international sales were denominated in US dollars. In addition, certain transactions with foreign suppliers are denominated in foreign currencies (principally Japanese Yen). The effect of a 10% fluctuation in the euro exchange rate would have had an effect of \$1.8 million on net revenues for the year ended December 31, 2003 and the effect on expenses of a 10% fluctuation in the Yen exchange rate would have been approximately \$0.8 million for 2003.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTAL DATA

REPORT OF INDEPENDENT AUDITORS

To the Board of Directors and Stockholders of
Southwall Technologies Inc.

In our opinion, the consolidated financial statements listed in the accompanying index under Item 15(a)(1) on page 83 present fairly, in all material respects, the financial position of Southwall Technologies Inc. and its subsidiaries at December 31, 2003 and 2002, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2003, in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedules listed in the index appearing under Item 15(a)(2) on page 83 present fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. These financial statements and financial statement schedules are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements and financial statement schedules based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. The Company incurred a net loss and negative cash flows from operating activities in 2003 and has significant debt service and other contractual obligations at December 31, 2003. These factors raise substantial doubt about its ability to continue as a going concern. Management's plans are outlined in Note 2. The consolidated financial statements do not include any adjustments that may result from the ultimate resolution of this matter.

PricewaterhouseCoopers LLP

San Jose, California
April 13, 2004

SOUTHWALL TECHNOLOGIES INC.
CONSOLIDATED BALANCE SHEETS
(dollars and shares in thousands, except for per share data)

	December 31,	
	2002	2003
ASSETS		
Current Assets:		
Cash and cash equivalents.....	\$ 1,998	\$ 1,152
Restricted cash.....	631	739
Accounts receivable, net of allowance for bad debts of \$552 and \$778 in 2002 and 2003, respectively.....	8,995	7,096
Inventories, net.....	8,537	6,830
Other current assets.....	4,310	2,617
Total current assets.....	24,471	18,434
Property, plant and equipment, net.....	50,251	21,787
Restricted loan proceeds.....	885	1,066
Other assets.....	975	434
Total assets.....	\$ 76,582	\$ 41,721
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Current portion of term debt and capital leases.....	\$ 7,499	\$ 2,042
Line of credit.....	--	6,844
Accounts payable.....	9,244	6,315
Accrued compensation.....	1,254	1,392
Other accrued liabilities.....	5,886	6,051
Total current liabilities.....	23,883	22,644
Term debt and capital leases.....	9,253	13,658
Government grants advanced.....	604	614
Other.....	2,368	3,084
Total liabilities.....	36,108	40,000
Commitments and contingencies (Note 10)		
Stockholders' Equity:		
Common stock, \$0.001 par value; 20,000 shares authorized, and 12,527 and 12,548 shares outstanding at 2002 and 2003, respectively.....	12	13
Capital in excess of par value.....	69,657	70,861
Notes receivable.....	(126)	--
Accumulated other comprehensive income		
Translation gain on subsidiary.....	1,032	3,240
Accumulated deficit.....	(30,101)	(72,393)
Total stockholders' equity	40,474	1,721
Total liabilities and stockholders' equity	\$ 76,582	\$ 41,721

The accompanying notes are an integral part of these consolidated financial statements.

SOUTHWALL TECHNOLOGIES INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(dollars and shares in thousands, except per share data)

	Years Ended December 31,		
	2001	2002	2003
Net revenues.....	\$ 82,976	\$ 68,759	\$ 53,326
Cost of sales.....	<u>60,148</u>	<u>49,614</u>	<u>45,914</u>
Gross profit (loss).....	<u>22,828</u>	<u>19,145</u>	<u>7,412</u>
Operating expenses:			
Research and development.....	5,456	7,685	6,714
Selling, general and administrative.....	11,036	12,450	12,348
Restructuring expenses.....	--	2,624	(65)
Impairment charge for long-lived assets.....	--	--	27,990
Total operating expenses.....	<u>16,492</u>	<u>22,759</u>	<u>46,987</u>
Income (loss) from operations.....	6,336	(3,614)	(39,575)
Interest expense.....	(2,872)	(1,734)	(1,590)
Costs of warrants issued.....	--	--	(865)
Other income, net.....	<u>1,385</u>	<u>1,070</u>	<u>419</u>
Income (loss) before provision for (benefit from) income taxes.....	4,849	(4,278)	(41,611)
Provision for (benefit from) incomes taxes.....	<u>214</u>	<u>(87)</u>	<u>681</u>
Net income (loss).....	<u>\$ 4,635</u>	<u>\$ (4,191)</u>	<u>\$ (42,292)</u>
Net income (loss) per share:			
Basic.....	\$ 0.58	\$ (0.40)	\$ (3.37)
Diluted.....	\$ 0.57	\$ (0.40)	\$ (3.37)
Weighted average shares of common stock and dilutive potential common stock:			
Shares used in computation, basic and diluted.....	8,032	10,418	12,537
Shares used in computation, basic and diluted.....	8,186	10,418	12,537

The accompanying notes are an integral part of these consolidated financial statements.

SOUTHWALL TECHNOLOGIES INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)

	Common Stock		Capital in	Treasury	Notes	Accumulated	Accumulated	Total	Compre-
	Shares	Amount	Excess of Par Value	Stock	Receivable	Income (Loss)	Deficit	Stock- holders' Equity (Deficiency)	hensive Income (Loss)
Balances, January 1, 2001.....	7,889	\$ 8	\$ 51,764	\$ (839)	\$ (99)	\$ (151)	\$ (30,545)	\$ 20,138	\$ (6,291)
Exercise of stock options.....	22	--	(107)	644	--	--	--	537	--
Sale of stock, net.....	422	--	970	--	--	--	--	970	--
Sales to employees under stock purchase plan.....	--	--	(107)	192	--	--	--	85	--
Issuance of stock for bonuses.....	--	--	(1)	3	--	--	--	2	--
Accelerated vesting on exercise of stock option.....	--	--	94	--	--	--	--	94	--
Repayments of notes receivable.....	--	--	--	--	11	--	--	11	--
Translation loss on foreign subsidiary.....	--	--	--	--	--	(21)	--	(21)	(21)
Net income.....	--	--	--	--	--	--	4,635	4,635	4,635
Balances, December 31, 2001.....	8,333	8	52,613	--	(88)	(172)	(25,910)	26,451	4,614
Exercise of stock options.....	328	--	1,642	--	--	--	--	1,642	--
Net proceeds from follow-on public offering.....	3,807	4	15,129	--	--	--	--	15,133	--
Sales to employee under stock purchase plan.....	59	--	231	--	--	--	--	231	--
Stock-based compensation.....	--	--	42	--	--	--	--	42	--
Issuance of notes receivable.....	--	--	--	--	(14)	--	--	(14)	--
Interest accrued on notes receivable....	--	--	--	--	(24)	--	--	(24)	--
Translation loss on foreign subsidiary.....	--	--	--	--	--	1,204	--	1,204	1,204
Net loss.....	--	--	--	--	--	--	(4,191)	(4,191)	(4,191)
Balances, December 31, 2002.....	12,527	12	69,657	--	(126)	1,032	(30,101)	40,474	(2,987)
Sales to employee under stock purchase plan.....	21	1	21	--	--	--	--	22	--
Issuance of warrants to investors.....	--	--	865	--	--	--	--	865	--
Issuance of warrants to creditors.....	--	--	201	--	--	--	--	201	--
Issuance of shares to directors.....	--	--	83	--	--	--	--	83	--
Accelerated vesting on exercise of stock option.....	--	--	34	--	--	--	--	34	--
Forgiveness of notes receivable.....	--	--	--	--	126	--	--	126	--
Translation loss on foreign subsidiary.....	--	--	--	--	--	2,208	--	2,208	2,208
Net loss.....	--	--	--	--	--	--	(42,292)	(42,292)	(42,292)
Balances, December 31, 2003.....	12,548	\$ 13	\$ 70,861	\$ --	\$ --	\$ 3,240	\$ (72,393)	\$ 1,721	\$ (40,084)

The accompanying notes are an integral part of these consolidated financial statements.

SOUTHWALL TECHNOLOGIES INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	For the Years Ended December 31,		
	2001	2002	2003
Cash flows provided by or (used in) operating activities:			
Net income (loss).....	\$ 4,635	\$ (4,191)	\$ (42,292)
Adjustments to reconcile net income (loss) to net cash provided by or (used in) operating activities:			
Impairment charge for long-lived assets.....	--	--	27,990
Depreciation and amortization.....	5,982	6,053	6,071
Loss on disposal of capital equipment.....	--	--	39
Stock-based compensation charge.....	--	42	117
Amortization of debt issuance costs.....	--	--	28
Warrants issued to investors and creditors.....	--	--	865
Interest on notes receivable.....	--	(24)	--
Officer loan forgiveness.....	--	--	126
Changes in operating assets and liabilities:			
Accounts receivable.....	4,297	(547)	1,899
Inventories.....	4,023	(2,385)	1,707
Other current and non-current assets.....	(610)	(560)	2,344
Accounts payable and accrued liabilities.....	(4,535)	(1,212)	(1,884)
Net cash provided by (used in) operating activities.....	13,792	(2,824)	(2,990)
Cash flows used in investing activities:			
Restricted cash.....	247	1,071	--
Expenditures for property, plant and equipment and other assets.....	(5,945)	(7,085)	(2,775)
Net cash used in investing activities.....	(5,698)	(6,014)	(2,775)
Cash flows provided by (used in) financing activities:			
Proceeds from borrowings.....	1,710	--	88
Principal payments on borrowings.....	(4,311)	(7,383)	(2,962)
Borrowings (repayments) on line of credit.....	(5,745)	(2,974)	6,844
Proceeds from investment allowances.....	2,050	1,044	1,556
Proceeds from sale of stock in follow-on offering, net.....	970	15,128	--
Proceeds from stock options and employee stock purchase plan exercises.....	706	1,879	22
Repayment of stockholders' note receivable.....	11	--	--
Issuance of note receivable.....	(19)	(15)	--
Net cash provided by (used in) financing activities.....	(4,628)	7,679	5,548
Effect of foreign exchange rate changes on cash.....	(165)	(205)	(629)
Net increase (decrease) in cash and cash equivalents.....	3,301	(1,364)	(846)
Cash and cash equivalents, beginning of year.....	61	3,362	1,998
Cash and cash equivalents, end of year.....	\$ 3,362	\$ 1,998	\$ 1,152
Supplemental cash flow disclosures:			
Interest paid.....	\$ 2,971	\$ 1,401	\$ 1,153
Income taxes paid.....	\$ 111	\$ 86	\$ 211
Supplemental schedule of non-cash investing and financing activities:			
Exercise stock options with issuance of stockholders note receivable.....	\$ 19	\$ 14	\$ --
Offset deposit to reduce sales and leaseback commitments.....	\$ 1,000	\$ --	\$ --
Warrants issued to creditors and investors.....	\$ --	\$ --	\$ 1,060

The accompanying notes are an integral part of these consolidated financial statements.

SOUTHWALL TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(dollars and shares in thousands, except per share data)

NOTE 1—THE COMPANY AND A SUMMARY OF ITS SIGNIFICANT ACCOUNTING POLICIES:

The Company

Southwall Technologies Inc. is a global developer, manufacturer and marketer of thin film coatings for the automotive glass, electronic display and architectural markets. The Company has developed a variety of products that control sunlight in automotive glass, reduce light reflection and improve image quality in electronic display products and conserve energy in architectural products. The Company's products consist of transparent solar-control films for automotive glass, anti-reflective films for computer screens, including flat panel and plasma displays, transparent conductive films for use in touch screen and liquid crystal displays, energy control films for architectural glass, and various other coatings.

Principles of consolidation

The consolidated financial statements include the accounts of Southwall and its wholly-owned subsidiaries. All inter-company balances and transactions have been eliminated in consolidation.

Foreign currency translation

The Company's German subsidiary used the EURO as its functional currency. Accordingly, the financial statements of this subsidiary are translated into U.S. dollars in accordance with Statement of Financial Accounting Standards ("SFAS") No. 52, "Foreign Currency Translation." Assets and liabilities are translated at exchange rates in effect at the balance sheet date and revenue and expense accounts at average exchange rates during the quarter. Exchange gains or losses from the translation of assets and liabilities are included in the cumulative translation adjustment component of accumulated other comprehensive income (loss). Gains and losses arising from transactions denominated in currencies other than the functional currency are included in other income, net.

Management estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Restricted cash

Restricted cash consists of the unapplied portion of grants received from the Saxony government to co-finance the costs of the construction of the Company's Dresden facility. In the event the Company fails to meet certain conditions related to the grants, the Saxony government has the right to reclaim the total grants. (See Note 5).

Revenue recognition

We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been provided, the sale price is fixed or determinable, and collectibility is reasonably assured. Accordingly, we generally recognize revenue from product sales when the terms of sale transfer title and risk of loss, which occurs either upon shipment or upon receipt by customers. In connection with product sales, we make allowances for estimated returns and warranties. We adjust these allowances periodically to reflect our actual and anticipated experience. If any of these conditions to recognize revenue is not met, we defer revenue recognition.

The Company has agreements under which it receives fees for certain licensing rights to technology and products. The Company does not allocate cost of sales to license revenues because such costs are insignificant. License revenues associated with these agreements are recognized ratably over the period of the contract when collection of the resulting receivable is probable. License revenues were \$211,000, \$287,000 and \$525,000 for the years 2001, 2002 and 2003, respectively.

Allowances for doubtful accounts and warranties.

We establish allowances for doubtful accounts and warranties for specifically identified, as well as anticipated, doubtful accounts and warranty claims based on credit profiles of our customers, current economic trends, contractual terms and conditions, and historical payment and warranty experience. As of December 31, 2002, our balance sheet included allowances for doubtful accounts of \$0.6 million and \$2.1 million for warranties. As of December 31, 2003, our balance sheet included allowances for doubtful accounts of \$0.8 million and \$1.9 million for warranties.

Concentration of credit risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash and trade accounts receivable.

The Company invests in a variety of financial instruments such as certificates of deposits and money market funds. By policy, the Company limits the amount of credit exposure to any one financial institution or commercial issuer.

The Company sells its products throughout the world. The Company performs ongoing credit evaluations of its customers' financial condition and, generally, requires no collateral from its customers. The Company maintains an allowance for uncollectible accounts receivable based upon anticipated collectibility of all accounts receivable.

The Company's ten largest customers accounted for approximately 85%, 84% and 84% of net product sales in 2001, 2002 and 2003 respectively. During 2003, Mitsui Chemicals, Saint Gobain Sekurit, Pilkington PLC and V-Kool accounted for 21.4%, 17.2%, 13.7% and 10.0%, respectively, of our net sales. During 2002, Saint Gobain Sekurit, Mitsubishi, Mitsui Chemicals and Pilkington PLC accounted for 18.7%, 18.0%, 15.7% and 10.8%, respectively, of our net sales. During 2001, Pilkington, Mitsubishi and Saint Gobain Sekurit accounted for 15.8%, 21.2% and 23.9%, respectively, of our net sales. The Company expects to continue to derive a significant portion of its net product sales from a relatively small number of customers. Accordingly, the loss of a large customer could materially hurt the Company's business, and the deferral or loss of anticipated orders from a small number of customers could materially reduce its revenue, operating results and cash flows in any period. At December 31, 2003, receivables from five customers represented 24%, 14%, 13%, 12% and 6% of the Company's accounts receivable, respectively. At December 31, 2002, receivables from two customers represented 32%, and 16% of the Company's accounts receivable, respectively.

Inventories

Inventories are stated at the lower of cost (determined by the first-in, first-out method) or market. Cost includes materials, labor and manufacturing overhead. Southwall establishes provisions for excess and obsolete inventories to reduce such inventories to their estimated net realizable value. Such provisions are charged to cost of sales.

Property and equipment

Property and equipment are stated at cost. The Company uses the units-of-production method for calculating depreciation on certain of its production machines and the straight-line method for all other property and equipment. Estimated useful lives of the assets range from five to ten years. On its large-scale production machines for which the units-of-production depreciation method is used, the Company records minimum annual depreciation of at least one-half of the depreciation that would have been recorded utilizing the straight-line depreciation method over a ten-year life. Leasehold improvements are amortized using the term of the related lease or the economic life of the improvements, if shorter.

Additions, major renewals and enhancements are included in the asset accounts at cost. Ordinary maintenance and repairs are charged to expense as incurred. Gains or losses from disposal are included in earnings.

Depreciation and amortization expense related to property and equipment for the years ended December 31, 2001, 2002 and 2003 was \$6.0 million, \$6.1 million and \$6.1 million, respectively.

Impairment of long-lived assets

Long-lived assets held and used by the Company are reviewed for impairment whenever events or circumstances indicate that the carrying amount of an asset may not be recoverable. Factors that could trigger an impairment review include the following: (i) significant negative industry or economic trends; (ii) exiting an activity in conjunction with a restructuring of operations; (iii) current, historical or projected losses that demonstrate continuing losses associated with an asset; or (iv) a significant decline in our market capitalization, for an extended period of time, relative to net book value. When we determine that there is an indicator that the carrying value of long-lived assets may not be recoverable, we measure impairment based on estimates of future cash flows. These estimates include assumptions about future conditions such as future revenues, gross margins, operating expenses within our

company, the fair values of certain assets based on appraisals, and industry trends. All long-lived assets to be disposed of are reported at the lower of carrying amount or fair market value, less expected selling costs.

Fair value disclosures of financial instruments

The Company has estimated the fair value amounts of its financial instruments, including cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities using available market information and valuation methodologies considered to be appropriate and have determined that the book value of those instruments at December 31, 2002 and 2003 approximates fair value.

Derivative financial instruments

The Company accounts for derivative financial instruments under SFAS No. 133, Accounting for Derivative Instruments and Hedging Activities. SFAS No. 133 establishes methods of accounting for derivative financial instruments and hedging activities related to those instruments as well as other hedging activities.

Stock-based compensation expense

SFAS No. 148, “Accounting for Stock-Based Compensation – Transition and Disclosure, an Amendment of FASB Statement No. 123” amends the disclosure requirements of SFAS No. 123, “Accounting for Stock-Based Compensation,” to require more prominent disclosures in both annual and interim financial standards regarding the method of accounting for stock-based employee compensation and the effect of the method used on reported results.

The Company accounts for stock-based employee compensation arrangements in accordance with provisions of Accounting Principles Board (“APB”) Opinion No. 25, “Accounting for Stock Issued to Employees” and related interpretations. Under APB 25, compensation expense is based on the difference, if any, on the date of the grant, between the fair value of the Company’s stock and the exercise price.

The following table illustrates the effect on net income and earnings per share if the Company had applied the fair value recognition provisions of SFAS 123 and SFAS 148 to stock-based employee compensation:

	<u>Years Ended December 31,</u>		
	<u>2001</u>	<u>2002</u>	<u>2003</u>
	(in thousands except per share amounts)		
Net income (loss)			
As reported.....	\$ 4,635	\$ (4,191)	\$ (42,292)
Add: Stock-based employee compensation expense included in reported net income (loss), net of related tax effects.....	--	42	34
Deduct: Total stock-based employee compensation determined under fair value based method for all awards, net of related tax effects.....	(802)	(1,288)	(695)
Pro forma.....	<u>\$ 4,635</u>	<u>(4,149)</u>	<u>(42,258)</u>
As reported - basic.....	\$ 0.58	\$ (0.40)	\$ (3.38)
Pro forma - basic.....	\$ 0.48	\$ (0.53)	\$ (3.37)
As reported - diluted.....	\$ 0.57	\$ (0.40)	\$ (3.38)
Pro forma - diluted.....	\$ 0.47	\$ (0.53)	\$ (3.37)

All options outstanding during 2002 and 2003 were excluded from the diluted net loss per share calculations because they were anti-dilutive in view of the losses incurred by the Company in those years.

For the stock option plans, the fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model, for the multiple option approach, with the following weighted average assumptions used for grants in 2001, 2002 and 2003, respectively: expected volatility of 89%, 96% and 99%; risk-free interest rate of 4.6%, 3.8% and 2.3%; and expected lives from vesting date of 3.26, 3.49, and 2.77 years. Southwall has not paid dividends and assumed no dividend yield. The weighted average fair value of stock options granted in 2001, 2002 and 2003 was \$1.89, \$4.95 and \$1.00 per share, respectively.

For the employee stock purchase plans, the fair value of each purchase right is estimated at the beginning of the offering period using the Black-Scholes option pricing model with the following weighted-average assumptions used in 2001, 2002 and 2003 respectively: expected volatility of 89%, 96% and 99%; risk-free interest rate of 4.19%, 4.13% and 2.70%; and expected lives of 0.5 years in each year. The Company has not paid dividends and assumed no dividend yield. The weighted-average fair value of those purchase rights granted in 2001, 2002 and 2003 was \$1.21, \$2.65 and \$0.56 per right, respectively.

Research and development expense

Research and development costs are expensed as incurred.

Comprehensive income (loss)

The Company has adopted the provisions of SFAS No. 130 "Reporting Comprehensive Income". SFAS 130 establishes standards for reporting and display in the financial statements of total net income and the components of all other non-owner changes in equity, referred to as comprehensive income (loss). Accordingly, the Company has reported the translation gain (loss) from consolidation of its foreign subsidiary in comprehensive income (loss).

Suppliers

The Company manufactures all of its products using materials procured from third-party suppliers. Certain of these materials are obtained from a limited number of sources. Delays or reductions in product shipments could damage the Company's relationships with customers. Further, a significant increase in the price of one or more of the materials used in the Company's products could have a material adverse effect on the Company's cost of goods sold and operating results.

The Company relies on third-party subcontractors to add properties, such as adhesives, to some of its products. There are only a limited number of qualified subcontractors that can provide some of the services the Company requires. Qualifying alternative subcontractors could take a great deal of time or cause the Company to change product designs. The loss of a subcontractor could adversely affect the Company's ability to meet its scheduled product deliveries to customers, which could damage its relationships with customers. If the Company's subcontractors do not produce a quality product, the Company's yield will decrease and its margins will be lower. Further, a significant increase in the price charged by one or more of the Company's subcontractors could force it to raise prices on its products or lower its margins, which could have a material adverse effect on its operating results.

The Company's production machines are large, complex and difficult to manufacture. It can take up to a year from the time the Company orders a machine until it is delivered. Following delivery, it can take the Company, with the assistance of the manufacturer, up to six additional months to test and prepare the machine for commercial production. There are a very limited number of companies that are capable of manufacturing these machines. The Company's inability in the future to have new production machines manufactured and prepared for commercial production in a timely manner would prevent the Company from delivering product on a timely basis and limit the Company's capacity for revenue growth.

Restructuring costs

For restructuring activities initiated prior to December 31, 2002 Southwall recorded restructuring costs when the Company committed to a plan to exit certain facilities, and significant changes to the exit plan were not likely to occur. For restructuring activities initiated after December 31, 2002, the Company records restructuring reserves when management has approved a plan to restructure operations and a liability has been incurred in accordance with SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities" as discussed in Note 12.

Income taxes

The Company accounts for deferred income taxes under the liability approach whereby the expected future tax consequences of temporary differences between the book and tax basis of assets and liabilities are recognized as deferred tax assets and liabilities. A valuation allowance is established for any deferred tax assets for which realization is uncertain.

Net income (loss) per share

Basic net income (loss) per share is computed by dividing income available to common shareholders (numerator) by the weighted average number of common shares outstanding (denominator) for the period. Diluted net income (loss) per share gives effect to all dilutive potential common shares outstanding during the period. The computation of diluted earnings per share uses the average

market prices during the period. The total amount of the difference in the basic and diluted weighted average shares of common stock and potentially dilutive securities in the periods where there is net income is attributable to the effect of dilutive stock options. In net loss periods, the basic and diluted weighted average shares of common stock and common stock equivalents are the same because inclusion of stock options would be anti-dilutive. At December 31, 2003 and 2002, there was no difference between the denominators used for calculation of basic and diluted net income (loss) per share.

Reclassifications

Certain costs in the 2001 consolidated financial statements have been reclassified to conform to the current year's presentation. Certain assets in 2002 consolidated financial statements have been reclassified to conform to the current's year presentation. These reclassifications did not change previously reported net income, stockholders' equity, or cash flows.

Recently issued accounting pronouncements

In January 2003, the Financial Accounting Standards Board ("FASB") issued FASB Interpretation No. 46, "Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51." FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN 46 is effective immediately for all new variable interest entities created or acquired after January 31, 2003. For variable interest entities created or acquired prior to February 1, 2003, the FASB recently delayed the required implementation date such that the provisions of FIN 46 are required to be adopted no later than the end of the first reporting period that ends after March 15, 2004. The company believes that the adoption of this standard will have no material impact on its financial statements.

In April 2003, the FASB issued SFAS No. 149, "Amendment of Statement 133 on Derivative Instruments and Hedging Activities". SFAS 149 amends and clarifies accounting for derivative instruments and hedging activities under SFAS 133, "Accounting for Derivative Instruments and Hedging Activities". SFAS 149 provides guidance relating to decisions made (a) as part of the Derivatives Implementation Group process, (b) in connection with other FASB projects dealing with financial instruments and (c) regarding implementation issues raised in the application of the definition of a derivative and the characteristics of a derivative that contains financing components. SFAS 149 is effective for contracts entered into or modified and for hedging relationships designated after June 30, 2003. The adoption of SFAS 149 did not have a material impact on our financial condition or results of operations.

In May 2003, the FASB issued SFAS No. 150 "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity". SFAS 150 requires freestanding financial instruments such as mandatory redeemable shares, forward purchase contracts and written put options to be reported as liabilities by their issuers as well as related new disclosure requirements. The provisions of SFAS 150 are effective for instruments entered into or modified after May 31, 2003 and pre-existing instruments as of the beginning of the first interim period that commences after June 15, 2003. The adoption of SFAS 150 did not have a material impact on our financial condition or results of operations.

NOTE 2—LIQUIDITY

The Company has prepared its consolidated financial statements assuming it will continue as a going concern and meet its obligations as they become due. The Company incurred a net loss and negative cash flows from operations in 2002 and 2003, and expects to incur net losses through at least the third quarter of 2004.

In the second quarter of 2003, the Company entered into a credit agreement with a financial institution that provided for a credit facility up to \$10.0 million, subject to certain restrictions in the borrowing base based on eligibility of receivables. In the fourth quarter of 2003 it amended the credit agreement to provide for a credit facility of up to \$7.0 million, subject to the same restrictions in borrowing capacity. The amendment to its credit facility was made following an agreement reached with Needham and Company, Inc., the financial institution and the Company to enable it to borrow up to \$3.0 million for working capital purposes, in addition to the \$7.0 million credit facility. At December 31, 2003, the Company was not in compliance with the minimum tangible net worth covenant and the current ratio covenants set forth in the credit agreements. The Company reached an agreement with the financial institution wherein they have agreed to forbear from exercising the rights and remedies available to them as a result of the default condition. The current credit agreement will expire on May 5, 2004.

The Company is in discussions with potential lenders regarding establishing a new credit facility. The Company cannot provide any assurance that alternative sources of financing will be available at all or on terms acceptable to it. The Company's ability to enter into a new facility or to raise additional funds may be adversely affected by a number of factors including delisting from the Nasdaq National Market and the approval by its stock holders for an increase in authorized shares (failure to secure approval will accelerate the due date of its convertible notes as discussed below). If the Company is unable to put in place a new credit facility or

obtain additional financing, it may be unable to satisfactorily meet all of its cash commitments required to fully implement its business plans. These factors together with the Company's working capital position and its significant debt service and other contractual obligations at December 31, 2003, raise substantial doubt about the Company's ability to continue as a going concern. Effective March 26, 2004, the Company voluntarily delisted from Nasdaq and applied to begin trading on the pink sheets. Due to the structure of the transaction contemplated by the investment agreement, we were no longer in compliance with certain Nasdaq listing requirements. We felt that a voluntary delisting from Nasdaq and a move to the pink sheets would provide the best option to our shareholders by retaining liquidity in our common stock.

Financing Agreements

During 2003, the Company experienced a significant deterioration in its working capital position, which raised concerns about its ability to fund its operations and continue as a going concern in the short term and its ability to meet obligations coming due over the next few years.

On October 8, 2003, the Company reviewed the revenue forecast for the fourth quarter of 2003 and determined that the anticipated sales for the quarter would not generate enough cash flow to continue operations through the end of the quarter. Management presented its findings to the Company's Board of Directors on October 10, 2003 and the directors instructed the management team to develop an emergency restructuring plan to improve the Company's cash flow and to obtain new financing.

The primary elements of management's restructuring plan included:

- Shutting down a majority of the domestic manufacturing and transferring that production to the Dresden, Germany facility;
- Beginning a series of staggered layoffs;
- Arranging new payment terms with all major creditors and vendors to extend or reduce payment obligations;
- Accelerating cash collections;
- Reducing operating expenses and inventory levels; and
- Minimizing capital expenditures.

The Company also began to solicit and receive proposals from potential investors and lenders.

After reviewing the proposals submitted, the Board determined to proceed with an offer from Needham & Company, Inc. ("Needham") and entered into a non-binding letter of intent with Needham on November 11, 2003. In connection with the letter of intent the Company agreed to issue warrants to Needham exercisable for 1,254,235 of shares of its common stock equal to 10% of the total shares outstanding (See Note 8 – Warrants).

On December 18, 2003, the Company entered into definitive investment agreements for a new bank loan guarantee and equity-financing package of up to \$7.5 million with Needham, affiliates of Needham and Dolphin Direct Equity Partners, L.P. ("Dolphin") (collectively the "Investors") and Pacific Business Funding ("PBF"). The agreements enabled the Company to receive up to \$3.0 million in new borrowings under its line of credit facility with PBF, supported by guarantees provided by Needham, in two separate allotments of \$2.25 million and \$0.75 million; and to receive \$4.5 million from the issuance of equity in two separate tranches of \$1.5 million and \$3.0 million. The new borrowings and the purchase of each equity tranche were subject to certain conditions, including, among other things, the receipt of concessions by the Company from creditors and landlords, the completion of certain restructuring actions and the achievement of cash flow break-even at quarterly revenue levels below those of third quarter 2003.

Needham provided the \$2.25 million and \$0.75 million guarantees on December 18, 2003 and January 15, 2004, respectively. In exchange for the guarantees the Company issued two allotments of warrants, both for 941,115 shares of common stock, on the date of the guarantees (See Note 8— Warrants and Note 14 — Subsequent Events).

On February 20, 2004, the parties amended and restated the investment agreement to provide that the Company would issue and sell to the Investors an aggregate of \$4.5 million of convertible notes in one tranche instead of Series A convertible preferred shares in two separate tranches. The convertible notes are convertible into Series A convertible preferred stock, which is convertible into common stock. In connection with the convertible notes the Company issued warrants for 1,694,007 shares of common stock (See Note 12 – Subsequent Events).

Following completion of the financing, based on securities outstanding as of March 28, 2004, the following summarizes arrangements that were made with the Investors regarding the convertible securities and warrants:

- if Needham and its affiliated entities were to exercise all of their warrants and convert all of their Series A shares (issuable upon conversion of its convertible notes), while maintaining their current ownership of approximately 2,200,067 shares of common stock, then Needham and its affiliated entities would own approximately 15,166,764 shares of the common stock, or about 59.4% of the total shares outstanding, including such issuances to Needham and its affiliates but excluding outstanding warrants and Series A shares held by other Investors.
- if Dolphin Direct Equity Partners, LP were to exercise all warrants and convert all of its Series A shares (issuable upon conversion of its convertible notes), then Dolphin would own approximately 5,498,141 shares of the common stock, or about 30.5% of the total shares outstanding, including such issuances to Dolphin but excluding outstanding warrants and Series A shares held by other Investors.
- The Company currently has 20,000,000 shares of common stock authorized under its certificate of incorporation. The Company expects to call a special meeting of its stockholders for the purpose of seeking approval of an amendment to its certificate of incorporation increasing the number of authorized shares available for issuance to a number that would allow it to meet fully its obligations to issue shares of capital stock under the investment agreement. If an amendment to the Company's certificate of incorporation is not approved, the amounts due under the convertible notes will accelerate, and it will not be able to meet its obligations under the investment agreement. The resulting lack of capital will prevent the Company from funding its operations and continuing as a going concern.

Agreements with Major Creditors

The investment agreements required the Company to negotiate settlement terms with certain major creditors including Teijin, Matrix Capital, and the Company's landlords as part of a restructuring plan.

Teijin previously guaranteed the Company's outstanding debt owed to UFJ Bank Limited (formerly known as Sanwa Bank Limited). On November 5, 2003, the Company defaulted on this debt and Teijin honored its guarantee by satisfying the obligation. Under the terms of Teijin's guarantee, the Company was obligated to immediately repay the amounts paid by Teijin. As part of the restructuring plan, the Company entered into a guaranteed Loan Agreement with Teijin in January 2004 to satisfy Teijin's claim. The agreement included a payment schedule that spread the payments out over a period of four years until 2008. The obligations owed to Teijin will not accrue interest if paid according to the payment schedule. The Company's obligations to Teijin are guaranteed by its subsidiary, Southwall Europe GmbH. (See Note 4 – Term Debt and Note 14 – Subsequent Events).

As of December 31, 2003, the Company was in default under a master sale-leaseback agreement with respect to two of its production machines. The Company had withheld lease payments in connection with a dispute with the leasing company, Matrix Funding Corporation. An agent purporting to act on behalf of the leasing company filed suit against the Company to recover the unpaid lease payments and the alleged residual value of the machines, totaling \$6.5 million in the aggregate. In February 2004, the Company reached a settlement agreement with the agent for \$2.0 million to be repaid over six years at a stepped rate of interest (See Note 4 – Term Debt and Note 14 – Subsequent Events).

In December 2003 and January and February 2004, the Company reached agreements with three of its five landlords to reduce, or extend the payment period, of its contractual obligations (See Note 10 – Commitments and Contingencies and Note 14 – Subsequent Events).

NOTE 3—LINE OF CREDIT

On May 16, 2003, the Company entered into credit agreements for a \$10.0 million receivables financing line of credit (which were amended on June 16, 2003) with a financial institution that was due to expire on May 16, 2004, subject to automatic one-year renewals unless terminated at any time by either party. The line of credit bears an annual interest rate of 7% above the financial institution's Base Rate (which was 4.0% at December 31, 2003), and is calculated based on the average daily accounts receivable against which the Company has borrowed. Half of the \$10.0 million line of credit is represented by a \$5.0 million credit line, guaranteed by the United States Export-Import Bank ("EXIM"). Availability under the EXIM line is limited to 80% of eligible foreign receivables acceptable to the lender. The remaining \$5.0 million portion of the \$10.0 million credit line is supported by domestic receivables. Availability under the domestic line of credit is limited to 70% of eligible domestic receivable acceptable to the lender. The financial institution reserves the right to lower the 70% and 80% of eligible receivable standards for borrowings under the credit agreements. In connection with the line of credit, the Company granted to the bank a lien upon and security interest in, and right of set off with respect to all of the Company's right, title and interest in all personal property and other assets, other than certain of the Company's Germany property or assets. The borrowing arrangements require the Company to comply with financial covenants to maintain minimum net

tangible net worth of \$33.0 million, a current ratio of at least 0.70, and revenues equal to or greater than 80% of revenues projected. As part of the agreements, the Company incurred and paid a one-time commitment fee of \$0.1 million in the second quarter of 2003, which will be amortized over the term of the agreements.

As a result of the impairment charge recorded at the end of the third quarter and a deterioration in our working capital position during the fourth quarter of 2003, the Company was in violation of the minimum net tangible net worth covenant and current ratio covenant set forth in each of the credit agreements, and, therefore, in default there under. On December 18, 2003 we signed a Forbearance Agreement with the financial institution to forbear from exercising its rights and remedies available to it owing to the default condition. The forbearance will remain in effect until the expiration date of the credit agreement subject to the Company's achievement of certain operational and financial milestones. The credit agreements will expire on May 5, 2004. Concurrent with the Forbearance Agreement, the credit agreement was amended to reduce the facility to \$7.0 million, subject to the same restrictions in borrowing capacity. The amendment to the credit facility was made following an agreement reached with Needham to guarantee an additional \$3.0 million facility with PBF. The guarantee was provided in two separate allotments of \$2.25 million on December 18, 2003 and \$0.75 million on January 15, 2004. In exchange for the guarantees, the Company issued two separate allotments of warrants for 941,115 shares of common stock. (See Note 8 - Warrants) As of December 31, 2003, the Company had approximately \$6.8 million of borrowings outstanding and no availability to borrow under the credit agreement.

NOTE 4—TERM DEBT AND CAPITAL LEASES

The Company's term debt and capital leases as of December 31, 2003 consists of the following:

<u>Description</u>	<u>Rate</u>	<u>Balance at December 31, 2003</u>	<u>Due in 2004</u>
Japanese bank loan guaranteed by Teijin.....	6.45%(1)	\$ 1,250	\$ 254
German bank loan dated May 12, 1999.....	6.13%(2)	2,691	539
German bank loan dated May 28, 1999.....	7.10%(3)	3,157	--
German bank loan dated May 28, 1999.....	3.75%	1,082	361
German bank loan dated July 25, 2000.....	7.15%(4)	2,084	372
German bank loan dated August 14, 1999 (due June 30, 2009).....	5.75%	2,131	--
German bank loan dated June 29, 2000.....	5.75%	108	108
German bank loan dated July 10, 2000.....	7.10%	108	108
German bank loan dated December 18, 2000.....	7.50%	109	109
German bank loan dated December 19, 2000.....	8.00%	97	97
Sales-leaseback dated July 19, 1999.....	13.00%	2,321	--
Sales-leaseback dated October 19, 1999.....	13.00%	461	--
Other equipment financings.....		101	94
Total term debt.....		<u>15,599</u>	<u>1,948</u>
Capital leases:			
Other equipment financings.....	--	101	94
Total capital leases.....		<u>101</u>	<u>94</u>
Total term debt and capital leases.....		<u>15,700</u>	<u>2,042</u>
Less current portion.....		<u>2,042</u>	
Term debt, non current.....		<u>\$ 13,658</u>	

The above table reflects changes to current and noncurrent classifications resulting from agreements reached in the subsequent events period with our term debt holders as part of our restructuring plan.

- (1) Following our default on the Japanese bank loan, Teijin honored its guarantee by satisfying the obligation. Under the terms of the guarantee the Company was obliged to immediately repay the amounts paid by Teijin. Interest on this loan accrued at a rate of LIBOR plus 5%.
- (2) Interest rate will remain fixed until December 31, 2004 and will be reset to the then prevailing market rate.
- (3) Interest rate will be reset to the then prevailing market rate in 2009.

- (4) Interest rate will be reset to the then prevailing interest rate in 2005.

The Japanese bank loan, dated May 6, 1997, is guaranteed by Teijin Limited (Teijin), a Japanese company. Teijin is a stockholder of and supplier of substrate materials to the Company. The Teijin guarantee was collateralized by certain equipment located in Southwall's Tempe manufacturing facility and inventory, to the extent necessary to provide 120% net book value coverage of the outstanding loan balance. The interest rate on the loan was re-set semi-annually at LIBOR plus 1.0%, (3.14% at December 31, 2002, and December 31, 2003). The Company was also subject to certain financial covenants under the guarantee. The Company paid Teijin semi-annually a loan guarantee service fee equal to 0.5625% of the outstanding balance. The loan required semi-annual payments of interest only during the first four years, followed by semi-annual installments plus interest, beginning in May 2001, for the remaining three and one half year term. At December 31, 2001 and 2002, the Company was not in compliance with certain of the financial covenants with Teijin pertaining to this promissory note. Southwall received a waiver from Teijin and the Japanese bank of any defaults that may exist through and including September 30, 2003 arising out of its failure to comply with the financial covenants of the guarantee agreement relating to minimum quick ratio, tangible net worth and maximum debt/tangible net worth. The waiver was conditioned on the Company's agreement to prepay \$2.5 million of the debt from the proceeds of its public offering. The Company paid \$2.5 million, in addition to the scheduled principal payment of \$1.25 million, on November 6, 2002. On May 6, 2003, the Company made a scheduled payment of \$1.25 million. However, the Company did not make the scheduled payment of \$1.25 million due on November 5, 2003 thereby defaulting on the debt. Teijin honored its guarantee by satisfying the obligation. Under the terms of Teijin's guarantee, the Company was obligated to immediately repay the amounts paid by Teijin. As part of the restructuring plan, the Company entered into a guaranteed Loan Agreement with Teijin to satisfy Teijin's claim. The agreement included a payment schedule that spread the payments out over a period of four years until 2008. The obligations owed to Teijin will not accrue interest if paid according to the payment schedule. The Company's obligations to Teijin are guaranteed by its subsidiary, Southwall Europe GmbH. The Company has classified the amount to be paid in 2005 and thereafter under the agreed payment schedule as noncurrent debt on the balance sheet at December 31, 2003. (See Note 13 – Subsequent Events)

During 1999, Southwall entered into a master equipment sale-leaseback agreement with a leasing company, Matrix Funding Corporation ("lessor"). Because the Company has an option to purchase the equipment at a price to be determined between Southwall and the lessor at the end of the lease period, the sale-leaseback agreements have been treated as a financing. One lease has a lease term of three years and the other lease has an initial lease term of two years with an option to extend it for an additional year. The leased equipment and certain other production equipment owned by the Company collateralize the sale-leaseback agreements. The effective interest rate of both is approximately 13% per annum and the leases are repayable over the lease term commencing in May 2000. The Company was in dispute with the lessor over interpretation of certain terms of the lease agreement and withheld lease payments due since March 2001. The lessor notified the Company that it considered the Company to be in default and in January 2002 drew down on a letter of credit in the amount of \$0.5 million that collateralized the Company's obligations. In May, 2002, a suit was filed against the Company by an agent of the successor to the lease demanding payment of unpaid lease payments and alleged residual values. (See Note 10 – Commitments and Contingencies.) In February 2004, we reached a settlement agreement with the agents for \$2.0 million bearing interest at a stepped rate. The settlement requires the Company to make an interest payment in 2004, and beginning in 2005, to make quarterly principal and interest payments until 2010. (See Note 14 – Subsequent Events.) The Company classified the payments due in 2005 and thereafter under the settlement agreement as noncurrent on the balance sheet as of December 31, 2003.

On May 12, 1999, the Company entered into a loan agreement with a German bank that provides for borrowings up to euros 3.1 million (\$3.9 million). Under the terms of this agreement, the funds were used solely for the purpose of capital investment by Southwall's German subsidiary. The term of the loan is for a period of 10 years and the principal is repayable in euros after the end of one year in 36 quarterly payments. The loan bears interest at 6.125% per annum for the first five years, and will be revised to the prevailing rate at the end of the fifth year. Of the borrowings outstanding of \$2.7 million under this bank loan at December 31, 2003, \$2.2 million was classified as noncurrent in the accompanying balance sheet.

On May 28, 1999, the Company entered into a general loan agreement with a German bank. Under the terms of the loan agreement, funds were made available in three tranches, and were used solely for the purpose of capital investment by the Company's German subsidiary. The agreement contains various covenants with which the Company was in compliance at December 31, 2003; the Company is current with respect to all principal and interest payments due under the loan agreement. Under the first tranche, the Company borrowed euro 2.5 million (\$3.2 million) for a term of twenty years beginning on May 28, 1999. The principal is repayable in euros beginning after ten years in ten equal, semi-annual payments. The loan bears fixed interest of 7.1% per annum for the first ten years, after which time the rate will be adjusted to a current prevailing rate. Of the borrowings outstanding under this tranche of \$3.2 million at December 31, 2003, \$3.2 million was classified as noncurrent in the accompanying balance sheet. Under the second tranche, the Company borrowed euro 1.7 million (\$2.1 million) for a term of seven years beginning May 28, 1999 and the principal is repayable after one year in twelve equal, semi-annual payments. The loan bears fixed interest at 3.75% per annum for the period of seven years. At December 31, 2003, the amount due under this second tranche was \$1.1 million, and \$0.7 million was classified as a noncurrent liability. Under the third tranche, of the Company borrowed euro 2.1 million (\$2.7 million) for a term of ten years beginning on July 25, 2000, and

the principal is repayable after one year, in thirty-six equal quarterly payments. The loan bears fixed interest of 7.15% per annum for the first five years, after which time the rate will be adjusted to a current prevailing market rate. At December 31, 2003, the amount due was \$2.1 million; of this amount, \$1.7 million was classified as noncurrent.

On August 14, 1999, the Company entered into a loan agreement with a German bank that provides for borrowings up to euros 1.7 million (\$2.1 million). As required by this agreement, the funds were used solely for the purpose of capital investment by the Company's German subsidiary. The principal balance is due in a single payment on June 30, 2009 and bears interest at a rate of 5.75% per annum. The interest is payable quarterly in euros. Fifty percent of the loan proceeds are restricted in an escrow account for the duration of the loan period and are classified as non-current "Restricted loan proceeds." The amount due under this bank loan at December 31, 2003 was \$2.1 million, which was classified as noncurrent.

On June 29, 2000, the Company entered into a loan agreement with a German bank that provides for borrowings up to euros 0.5 million (\$0.6 million). As required by this agreement, the funds were used solely for the purpose of capital investment by the Company's German subsidiary. The principal balance is repayable in 12 quarterly payments beginning June 2001 and bears interest at a rate of 5.8% per annum. The interest is payable quarterly in euros. The agreement contains various covenants with which the Company was in compliance at December 31, 2003. The amount due under this bank loan was \$0.1 million at December 31, 2003.

On July 10, 2000, the Company entered into a loan agreement with a German bank that provides for borrowings up to euros 0.5 million (\$0.6 million). As required by this agreement, the funds were used solely for the purpose of capital investment by the Company's German subsidiary. The principal balance is repayable in 12 quarterly payments beginning June 2001 and bears interest at a rate of 7.10% per annum. The interest is payable quarterly in euros. The amount due under this bank loan was \$0.1 million at December 31, 2003.

On December 18, 2000, the Company entered into a loan agreement with a German bank that provides for borrowings up to euros 0.2 million (\$0.3 million). As required by this agreement, the funds were used solely for the purpose of capital investment by the Company's German subsidiary. The principal balance is repayable in nine quarterly payments beginning March 2002 and bears interest at a rate of 7.5% per annum. The interest is payable quarterly in euros. At December 31, 2003, the amount outstanding under this bank loan was \$0.1 million.

On December 19, 2000, the Company entered into a loan agreement with a German bank that provides for borrowings up to euros 0.3 million (\$0.4 million). As required by this agreement, the funds were used solely for the purpose of capital investment by the Company's German subsidiary. The principal balance is repayable in 12 quarterly payments beginning March 2002 and bears interest at a rate of 7.5% per annum. The interest is payable quarterly in euros. At December 31, 2003, the amount outstanding under this bank loan was \$97,000.

The preceding German bank loans are collateralized by the production equipment, building and land owned by the Company's German subsidiary. The dollar equivalent value for the preceding German bank loans has been calculated using the euro exchange rate as of December 31, 2003.

Other term debt consists of capitalized leases related primarily to certain computer equipment used by the Company.

Scheduled principal reductions of term debt for the next five years and thereafter, are as follows:

	<u>Amount</u>
2004.....	\$ 2,042
2005.....	1,556
2006.....	1,600
2007.....	1,240
2008.....	1,240
Thereafter.....	8,022
Total.....	<u>\$ 15,700</u>

The above table reflects changes to current and noncurrent classifications resulting from agreements reached in the subsequent events period with our term debt holders as part of our restructuring plan.

The Company incurred total interest on indebtedness of \$2.9 million, \$1.7 million and \$1.6 million in 2001, 2002 and 2003, respectively.

NOTE 5—GOVERNMENT GRANTS AND INVESTMENT ALLOWANCES

The Company has an agreement to receive cash grant awards (the "Grant"), which was approved by the Saxony government in May 1999. As of December 31, 2003, the Company had received approximately euros 5.6 million (\$7.1 million) under this Grant and accounted for the Grant by applying the proceeds received to reduce the cost of fixed assets of the Dresden manufacturing facility. Additionally, as of December 31, 2003, the Company has a balance remaining from the government grants received in May 1999 of euros 0.5 million (\$0.6 million) which has been recorded as an advance and held as restricted cash until the Company receives approval from the Saxony government to apply the funds to reduce its capital expenditures.

Giving effect to an amendment of the terms of the Grant in 2002, the Grant is subject to the following requirements:

- (a) The grant was earmarked to co-finance the costs of the construction of a facility to manufacture XIR® film for the automotive glass industry.
- (b) The construction period for the project is from March 15, 1999 to June 30, 2006.
- (c) The total investment during the construction period should be at least euros 47.0 million (\$59.4 million).
- (d) The project must create at least 143 permanent jobs and 7 apprenticeships by June 30, 2006.

If the Company fails to meet the above requirements, the Saxony government has the right to demand repayment of the Grant.

In addition to the Grant, the Company is further eligible for cash investment allowances from the Saxony government calculated based on the total projected capital investment by the Company in its Dresden facility of euros 47.0 million (\$59.4 million), subject to European Union regulatory approval. During 2000, 2001, 2002 and 2003, the Company received euros 1.2 million (\$1.5 million), euros 2.5 million (\$3.2 million), euros 1.2 million (\$1.5 million), and euros 1.3 million (\$1.6 million), respectively, in investment allowances from the Saxony government, and those proceeds were applied to reduce the capitalized construction cost of the Dresden facility. These investment allowances are subject to the following requirements:

- (a) The movable and immovable assets, the acquisition costs of which are taken into account in determining the investment allowance, shall be employed within the subsidized territory for a period of at least five years following the acquisition or production.
- (b) The movable assets, the acquisition costs of which are taken into account in determining the increased investment allowance, shall remain in a business that is engaged in the processing industry, or in a similar production industry, for a period of at least five years following the acquisition or production.

If the Company fails to meet the above requirements, the Saxony government has the right to demand repayment of the allowances.

The Grants and investment allowances, if any, that the Company is entitled to seek from the Saxony government varies from year to year based upon the amount of capital expenditures that meet the above requirements. Generally, Southwall is not eligible to seek total investment grants for any year in excess of 33% of its eligible capital expenditures for that year. The Company cannot guarantee that it will be eligible for or receive additional grants or allowances in the future.

NOTE 6—INCOME TAXES

The income tax provision relates primarily to foreign taxes, foreign withholding taxes on royalty payments and state minimum tax obligations.

The effective income tax rate differs from the federal statutory rate as a result of foreign taxes and valuation allowances established for deferred tax assets.

Deferred tax (liabilities) assets are comprised of the following:

	December 31,	
	2002	2003
	(in thousands)	
Depreciation.....	\$ (4,606)	\$ (5,057)
Other.....	(262)	--
Gross deferred tax liabilities.....	<u>(4,868)</u>	<u>(5,057)</u>
Inventory reserves.....	520	574
Write-down of fixed assets.....	963	11,987
Bad debt reserves.....	208	310
Sales returns and allowances.....	809	737
Accrued compensation reserves.....	1,052	422
Restructuring reserves.....	774	625
Other various reserves.....	702	2,570
Other.....	53	1,141
Loss carryforwards.....	12,761	14,241
Credit carryforwards.....	1,697	1,971
Gross deferred tax assets.....	<u>19,539</u>	<u>34,578</u>
Deferred tax assets valuation allowance.....	<u>(14,671)</u>	<u>(29,521)</u>
Net deferred taxes.....	<u>\$ --</u>	<u>\$ --</u>

At December 31, 2003, the Company had net federal operating loss carryforwards of approximately \$41.2 million that expire at various dates from 2004 through 2023. Certain of the net operating loss carryforwards resulted from employee exercises of non-incentive stock options or disqualifying dispositions, the tax benefit of which, when realized, will be accounted for as an addition to capital in excess of par value, rather than as a reduction of the provision for income taxes. The Company has state net operating loss carryforwards that expire at various future dates. Research and development, investment and foreign tax credit carryovers of approximately \$1.9 million are also available to reduce future federal and state income taxes and expire at various dates through 2023. If certain substantial changes in ownership of the Company occur, there would be an annual limitation on the amount of the carryforwards that can be utilized.

The Company believes that sufficient uncertainty exists with regard to the realization of these tax assets; accordingly, a full valuation allowance is necessary. These factors include the lack of a significant history of consistent profits and the lack of carryback capacity to realize these assets. In the absence of objective evidence, the Company is unable to assert that it will generate sufficient taxable income to realize the deferred tax assets.

NOTE 7—STOCK AND EMPLOYEE STOCK PURCHASE PLANS COMPENSATION

Stock Option Plans

The Company has granted stock options under various option plans and agreements in the past and currently grants stock options under the 1997 Stock Incentive Plan and the 1998 Stock Option Plan for Employees and Consultants. The board of directors adopted the 1998 Stock Option Plan for Employees and Consultants on August 6, 1998. The Human Resources Committee of the board of directors administers the plans and agreements. The exercise price of options granted under the 1997 and 1998 plans must be at least 85% of the fair market value of the stock at the date of grant.

Generally, options granted under the plans vest at a rate of 25% per year, are non-transferable and expire over terms not exceeding ten years from the date of grant or three months after the optionee terminates his relationship with the Company.

From 1998 to 2002 an certain officer of Southwall exercised stock options under the plans by issuing full recourse notes with an annual rate of interest of generally 7%, as discussed in Note 10.

As of December 31, 2003, there were 450,537 shares of Common Stock available for grant under the two stock option plans.

The activity under the option plans, combined, was as follows:

	(000's) Options	Exercise Price	Weighted Average Exercise Price
Options outstanding at January 1, 2001.....	1,968	\$1.56 - \$11.50	\$ 4.92
Granted.....	541	\$2.13 - \$6.06	3.19
Exercised.....	(150)	\$1.56 - \$6.88	3.59
Cancelled or expired.....	(448)	\$2.13 - \$11.50	4.80
December 31, 2001.....	<u>1,911</u>	<u>\$1.56 - \$11.50</u>	<u>\$ 4.81</u>
Granted.....	655	\$2.25 - \$15.00	7.81
Exercised.....	(322)	\$2.13 - \$11.50	5.10
Cancelled or expired.....	(291)	\$2.13 - \$15.00	5.65
December 31, 2002.....	<u>1,953</u>	<u>\$2.13 - \$15.00</u>	<u>\$ 5.64</u>
Granted.....	719	\$0.88 - \$2.28	1.65
Exercised.....	--	--	--
Cancelled or expired.....	(585)	\$1.92 - \$15.00	5.18
December 31, 2003.....	<u>2,087</u>	<u>\$1.56 - \$11.50</u>	<u>\$ 4.39</u>

The following table summarizes information about stock options outstanding at December 31, 2003:

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number Out- standing	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
\$ 0.88 -- \$1.05	316,279	6.6	\$ 1.02	16,054	\$ 0.96
\$ 1.56 -- \$2.28	378,385	7.2	2.13	45,511	2.04
\$ 2.63 -- \$3.49	261,174	4.4	3.03	159,174	2.91
\$ 3.58 -- \$4.50	262,422	3.8	4.06	250,672	4.06
\$ 4.87 -- \$5.07	218,950	2.3	5.01	203,950	5.00
\$ 5.21 -- \$7.06	257,513	2.8	6.24	202,277	6.17
\$ 7.44 -- \$8.00	240,548	6.2	7.95	96,050	7.88
\$ 8.72 -- \$9.90	125,888	5.3	9.62	38,427	9.67
\$11.50 -- \$11.50	10,000	3.2	11.50	7,500	11.50
\$15.00 -- \$15.00	16,500	5.3	15.00	4,125	15.00
\$ 0.88 -- \$15.00	<u>2,087,659</u>	5.0	\$ 4.40	<u>1,023,740</u>	\$ 5.01

Employee Stock Purchase Plan

In March 1997, the Company adopted the 1997 Employee Stock Purchase Plan ("the 1997 Plan") and reserved 100,000 shares of Common Stock for issuance thereunder. Employees, subject to certain limitations, may purchase shares at 85% of the lower of the fair market value of the Common Stock at the beginning of the six-month offering period, or the last day of the purchase period. During 2001, 2002 and 2003, 38,000, 59,000 and 20,771 shares, respectively, were sold under the 1997 Plan. At December 31, 2003, there were 77,666 shares available for issuance under the 1997 Plan.

401(k) Plan

In 1998, the Company sponsored a 401(k) defined contribution plan covering eligible employees who elect to participate. Southwall is allowed to make discretionary profit sharing and 401(k) matching contributions as defined in the plan and as approved by the board of directors. The Company matches 25% of each eligible participant's 401(k) contribution up to a maximum of 20% of the participant's compensation, not to exceed one thousand dollars per year. Southwall's actual contribution may be reduced by certain available forfeitures, if any, during the plan year. No discretionary or profit sharing contributions were made for the years ending

December 31, 2001, 2002 and 2003. Matching contributions for the years ended December 31, 2001, 2002 and 2003 were \$0.1 million for each year.

NOTE 8—WARRANTS

The warrants described below are for common stock at an exercise price of \$0.01. With the exception of the warrants issued in connection with the letter of intent, the term of the warrants is five years from the date of issuance. The Company classified the warrants as equity at December 31, 2003 in accordance with EITF 00-19 *Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock*.

As a result of the nominal exercise price of the warrants, the warrant value is based on the value of the common stock on the date of issuance.

The quoted market price of the Company's common stock was not regarded as an appropriate basis for warrant values, on account of the dilution of the stock and the thin trading of the stock. The fair value of the common stock was based on a Company wide valuation performed by management using accepted valuation methodologies.

Warrants issued in connection with the Letter of Intent

In connection with the November 11, 2003 Letter of Intent signed between Needham and the Company outlining the proposed debt guarantee and equity financing the Company issued warrants for 1,254,235 shares of common stock, representing 10% of the outstanding common stock of the Company, at \$0.01 per share. The warrants expire on November 11, 2008 or execution of definitive investment agreements, whichever is earlier. The warrants expired on December 18, 2003, the date of the signing of the definitive investment agreements.

The warrant includes anti-dilution protection whereby the number of warrants would be increased to 10% of the fully diluted number of shares of the Company in the event that the Company entered into a financing agreement with an alternate investor before the end of the first quarter of 2004.

Needham did not seek exclusive negotiations with the Company and the warrant was considered as compensation for Needham investing time in negotiating and structuring the potential transaction.

The warrants were valued by the Company at \$100,000 and reflect the relative probabilities of an agreement being reached and the anti-dilution feature. The fair value of the warrant was recorded as non-operating expense.

Warrants issued in connection with the investment agreement

In accordance with the investment agreement warrants were to be issued to the Investors on the closing of each guarantee and equity tranche. However, the terms of the investment agreement were such that the Investors were entitled to receive the 752,892 warrants associated with the second tranche of equity regardless of whether the second equity closing occurred or not. This term was inserted to the agreements as further incentive for the Investors to enter into definitive agreements. As the Company has an enforceable obligation to issue the warrants and as the terms of the warrant were known as of the date of the investor agreement, the warrants are considered issued for accounting purposes as of December 18, 2003.

As issued as an incentive to enter into definitive agreements for transactions that the Investors are not committed to, the Company determined that the value of the warrants should be recorded as non-operating expense. The Company considered that the Investors were not committed to the contemplated transactions as a result of the judgmental nature of the closing conditions. Management has determined the value of the warrants to be \$309,000.

The investment agreement also included terms that required the Company to issue additional warrants to the Investors if, as part of the restructuring efforts, the Company issued any equity instruments, notes or other debt instruments to any creditor, landlord, employee, director, agent or consultant.

Following the issuance of equity instruments the Company is required to issue to each of the Investors warrants in such amounts as would allow the investors to maintain their aggregate ownership percentage (on a fully-diluted basis) as if such issuance had not occurred. Such warrants represent anti-dilution protection for the investor and are therefore not valued as a stand-alone instrument.

Following note or debt issuances to creditors the Company is required to issue additional warrants to each of the Investors representing the right to purchase that number of shares of common stock equal to the product of (x) 1.25 and (y) the original principal amount of such note or debt instrument. Such warrants represent penalties for the Company failing to eliminate obligations to creditors, and are regarded as issued for accounting purposes as of the date of the agreement triggering legal entitlement.

In December 2003, additional warrants totaling 409,246 were triggered by note or debt issuances. The Company determined the value of the warrants to be \$168,000. The fair value of the warrants was recorded as non-operating expense.

Warrants issued in connection with the guarantee from Needham and line of credit from PBF

In connection with the guarantee from Needham and as additional incentive to complete the financing closings, as contemplated in the investment agreement, the Company issued warrants for 941,115 shares of common stock. Management has determined the value of the guarantee and warrants at \$98,000 and \$386,000, respectively.

The Company recorded the amount of the warrant value equal to the fair value of the guarantee, \$98,000, as debt issuance costs to be amortized over the life of the line of credit. The residual value of the warrants, \$288,000, is recorded as non-operating expense, as representing an incentive to enter into definitive agreements for transactions to which Needham are not committed.

In November 2003, and continuing thereafter, the Company defaulted under its Factoring Agreements with PBF. On account of the default, PBF is entitled to demand immediate repayment of all outstanding obligations, or to foreclose its security interest in the Company's collateral. In consideration of PBF's forbearance from exercising its rights and as incentive to provide \$3.0 million of borrowings under the line credit, the Company agreed to issue warrants for 250,000 shares of the Company's common stock. In addition, the Company paid a forbearance fee of \$70,000 and reimbursed PBF for \$31,000 of legal fees. The Company determined that the fair value of the warrants was \$102,500. The Company has recorded the fair value of the warrants and the fees to debt issuance costs and is amortizing the amount over the life of the line of credit.

NOTE 9—SEGMENT REPORTING

Southwall reports segment information using the management approach to determine segment information. The management approach designates the internal organization that is used by management for making operating decisions and assessing performance as the source of its reportable segments. The Company is organized on the basis of products and services. However, we do not separately track costs associated with our segments. The total net revenues for the automotive glass, electronic display, and architectural product lines were as follows:

	<u>2001</u>	<u>2002</u> (in thousands)	<u>2003</u>
Automotive glass.....	\$ 37,385	\$ 25,697	\$ 23,245
Electronic display.....	29,691	26,555	19,019
Architectural.....	15,900	16,507	11,062
Total net revenues.....	<u>\$ 82,976</u>	<u>\$ 68,759</u>	<u>\$ 53,326</u>

The following is a summary of net revenue by geographic area for 2001, 2002 and 2003:

	<u>2001</u>	<u>2002</u> (in thousands)	<u>2003</u>
United States.....	\$ 10,881	\$ 10,597	\$ 5,707
Japan.....	26,755	24,853	17,118
France.....	19,842	12,922	9,327
Pacific Rim.....	9,113	9,326	7,335
Rest of world.....	7,830	5,636	6,760
Germany.....	8,555	5,425	7,079
Total net revenues.....	<u>\$ 82,976</u>	<u>\$ 68,759</u>	<u>\$ 53,326</u>

Southwall operates from facilities located in the United States and Germany. Identifiable assets were as follows:

	December 31,	
	2002	2003
	(in thousands)	
United States.....	\$ 53,838	\$ 15,392
Germany.....	22,744	26,329
Consolidated.....	<u>\$ 76,582</u>	<u>\$ 41,721</u>

NOTE 10—COMMITMENTS and CONTINGENCIES

Commitments

The Company leases certain property and equipment as well as its facilities under noncancellable operating and capital leases. These leases expire at various dates through 2007. As of December 31, 2003, the future minimum payments under these leases are as follows:

Year Ending December 31,	Capital	Operating
	Leases	Leases
	(in thousands)	
2004.....	\$ 104	\$ 3,197
2005.....	6	790
2006.....	--	488
2007.....	--	250
2008.....	--	--
Thereafter.....	--	--
Future minimum lease payments.....	110	<u>\$ 4,725</u>
Less - amounts representing interest.....	(9)	
Present value of future minimum lease payments.....	<u>\$ 101</u>	
Current maturities.....	<u>\$ 94</u>	
Long-term lease obligations.....	<u>\$ 7</u>	

Rent expense under operating leases was approximately \$3.7 million, \$3.7 million and \$2.2 million in 2001, 2002 and 2003, respectively. In December 2003 we reached an agreement with the landlord of one of our Palo Alto buildings to change the terms of the lease. As we intend to occupy the premises through December 2004, we accounted for the change as a lease modification in accordance with SFAS No. 13, Accounting for Leases. The modification is reflected in the above table. In January and February 2004, we reached agreements with two further landlords to reduce, or extend the payment periods of our contractual obligations (See Note 13 – Subsequent Events). The 2004 lease modifications are not reflected in the above table.

Contingencies

In July 2002, we were served with a complaint in a lawsuit captioned "Hurricane Glass v. Southwall Technologies Inc. and V-Kool, Inc." filed in the Circuit Court of the Twelfth Judicial Circuit in and for Sarasota County, Florida. The complaint alleges that Hurricane was a distributor of our "Solis" product, that Hurricane's customers experienced various problems and failures with the product and that, as a result, Hurricane was required to perform repairs and replacements under its warranty provisions. The complaint alleges approximately \$0.4 million in damages against both defendants. We filed a motion to dismiss based on improper venue, which was denied. On June 4, 2003, the Court of Appeals overturned the lower court's order and granted our motion to dismiss. On October 20, 2003, we were served with a substantially similar lawsuit captioned "Hurricane Glass Shield, Inc. v. Southwall Technologies, Inc." filed in the Superior Court of the State of California in Santa Clara, California. We have filed a demurrer motion seeking to dismiss the case in its entirety. A hearing on that motion is scheduled for May 20, 2004.

We have been named as a defendant, along with Bostik, Inc., in an action entitled "WASCO Products, Inc. v. Southwall Technologies Inc. and Bostik, Inc.," Civ. Action No. C 02-2926 CRB, which was filed in Federal District Court for the Northern District of California on June 18, 2002. We previously filed a Motion to Dismiss and an Opposition to Class Certification. The Motion to Dismiss was granted to us on May 29, 2003. The plaintiff filed its Third Amended Complaint on June 27, 2003. On December 23, 2003, our motion for summary judgment on all of Wasco's remaining claims was granted in our favor. Wasco has filed a notice of appeal to the United States Court of Appeals for the Ninth Circuit.

We were a defendant in an action entitled "Portfolio Financial Servicing Company v. Southwall Technologies Inc.," which was filed in state court in Utah on May 22, 2002. This action arose out of sale-leaseback agreements, which we entered into with an entity formerly known as Matrix Funding Corporation, or Matrix, in 1999 in connection with the acquisition of two of our production machines. Matrix thereafter filed bankruptcy proceedings. Plaintiffs in the action were Bank of America, which alleged that it was the successor in interest to Matrix, and Portfolio Financial Servicing Company which claimed to be an agent of the successor to Matrix. The plaintiffs demanded payment of \$6.5 million, which they alleged constituted unpaid lease payments, plus the alleged residual value of the equipment, less monies that Matrix owed to Southwall. We asserted that Matrix violated certain material terms of the lease. We entered into a settlement agreement with the plaintiffs on July 31, 2003, pursuant to which this claim would have been extinguished by payment from us to the plaintiffs of \$2.5 million. The settlement agreement was subject to the satisfaction of certain conditions, which were required to be fulfilled on or before October 1, 2003, including the payment of the settlement amount, substantially all of which we needed to borrow. The conditions were not satisfied by October 1, 2003, and the settlement agreement terminated. We reentered discussions with the plaintiffs and achieved a revised settlement agreement on February 20, 2004. Pursuant to the revised settlement agreement, we agreed to pay the plaintiffs a total of \$2.0 million plus interest over a period of 6 years from December 31, 2004 until December 31, 2010. We also agreed to return to the plaintiffs the equipment in question. If we fail to make the required payments, the plaintiffs may enter a confession of judgment against us in the amount of \$5.9 million. (See Note 13 – Subsequent Events)

We are a defendant in an action filed on April 5, 1996 entitled "Four Seasons Solar Products Corp. vs. Black & Decker Corp., Bostik, Inc. and Southwall Technologies Inc.," No. 5 CV1695, pending in the United States District Court for the Eastern District of New York. Plaintiff is a manufacturer of insulated glass units, which incorporate our Heat Mirror film. Plaintiff alleges that a sealant provided by the co-defendant is defective, asserts causes of action for breach of contract, unfair competition, and fraudulent concealment, and seeks monetary damages of approximately \$36 million for past and future replacement costs, loss of customer goodwill, and punitive damages against all defendants. We filed a motion to dismiss. On April 8, 2003, the court issued an order granting final judgment in the Company's favor. Four Seasons has filed a Notice of Appeal. The appeal has been fully briefed and argued, but no decision has been rendered.

The insurance carriers in some of the litigation related to alleged product failures and defects in window products manufactured by others in which we were a defendant in the past paid the defense and settlement costs related to such litigation. Those insurance carriers reserved their rights to recover a portion or all of such payments from us. As a result, those insurance carriers could seek from us up to an aggregate of \$12.9 million plus defense costs, although any such recovery would be restricted to claims that were not covered by our insurance policies. We intend to vigorously defend any attempts by these insurance carriers to seek reimbursement. We are not able to estimate the likelihood that these insurance carriers will seek to recover any such payments, the amount, if any, they might seek, or the outcome of such attempts.

In addition, we are involved in certain other legal actions arising in the ordinary course of business. We believe, however, that none of these actions, either individually or in the aggregate, will have a material adverse effect on our business, our consolidated financial position, results of operations or cash flows.

NOTE 11—RELATED PARTY TRANSACTIONS

Teijin

On April 9, 1997, Southwall signed collaborative agreements with a major supplier of the Company's raw materials, Teijin Limited. The agreements provided for, among other things, the purchase by Teijin of 667,000 shares of the Company's common stock at a price of \$7.50 per share; a guarantee by Teijin of a \$10.0 million loan to the Company; and an agreement to collaborate to achieve closer marketing and product development ties between the two companies. The Company paid an annual loan guarantee fee to Teijin of 0.5625% of the outstanding principal balance of the loan guaranteed by Teijin. The Company paid a loan guarantee fee of approximately \$39,179 and \$7,070 to Teijin in 2002 and 2003, respectively. Pursuant to a letter agreement dated March 28, 2002, the Company was obligated to prepay \$2.5 million of the loan guaranteed by Teijin with the proceeds from common stock sold in a public offering or an amount equal to 10% of the proceeds from a sale of stock other than in a public offering. As a result of the Company's successful follow-on public offering in 2002 (See Note 4), the Company paid \$2.5 million, in addition to the scheduled principal payment of \$1.25 million, on November 6, 2002. The Company made the scheduled payment of \$1.25 million in May 2003. However, we did not make the scheduled payment of \$1.25 million due on November 5, 2003 under the loan and Teijin paid the \$1.25 million to the Japanese bank in November 2003. On January 19, 2004 we entered into a Guaranteed Loan Agreement with Teijin to satisfy Teijin's claim. (See Note 14 – Subsequent Events)

During 2001, 2002 and 2003 the Company paid Teijin approximately \$9.0 million, \$6.30 million and \$2.2 million for purchases of raw material substrates. At December 31, 2002 and 2003, accounts payable to Teijin were \$0.4 million and \$0.2 million.

The Company has two distribution agreements with Globamatrix under which the Company granted it exclusive licenses in North America to distribute the Company's after-market applied film in the automotive and architectural glass markets. Under the agreements, which are scheduled to expire in 2007 and 2008, Globamatrix agreed to purchase an annually increasing amount of our products; however, the Company did not enforce the minimum purchase obligation provision in 2002. During 2001, 2002 and 2003 sales to Globamatrix were \$5.6 million, \$6.4 million and \$7.8 million. At December 31, 2002 and 2003, accounts receivable from Globamatrix were \$2.9 million and \$2.1 million. In December 2002, the Company reached a settlement in the amount of \$1.5 million with Globamatrix on a product defect claim that arose in October 2002; of the \$1.5 million settlement, \$0.5 million was provided as a discount against future purchases beginning January 1, 2003 through October 2003, and had been accrued at December 31, 2002. In August 2003, the Company amended the distribution agreements to reduce Globamatrix' minimum purchase commitment for 2003 from \$13.3 million to \$7.6 million. In December 2003, the Company further amended the distribution agreements to lower Globamatrix' 2004 minimum purchase commitments from \$15.3 million, to \$9.0 million.

On April 20, 2001, Globamatrix purchased 422,119 shares of the Company's common stock for \$1.0 million (approximately \$2.37 per share) pursuant to a stock purchase agreement. The closing price of the Company's common stock on the Nasdaq National Market was \$2.10 per share on April 19, 2001, and \$2.19 per share on April 20, 2001. The shares were not registered in 2002 and 2003 under the Securities Act. Globamatrix holds registration rights with respect to the shares.

Transactions Involving Directors

In April 1997, the Company entered into a development and technology agreement with Energy Conversion Devices, Inc., or ECD. This agreement provides that the Company will pursue with ECD the commercialization of the process of sputter coating on flexible substrates using PECVD processes. The agreement further provides that the Company will pay ECD a royalty in an amount based upon the sales volume of product produced through the PECVD process. Southwall agreed to pay to ECD 2.25% of its net sales in connection with PECVD technology for five years and 1.25% of net sales after that. Through December 31, 2003, the process had not been commercialized and the Company had not paid ECD royalties under the agreement. In February 1999, the Company entered into an equipment purchase contract with ECD pursuant to which ECD agreed to modify one of the Company's production machines (PM 7) so that the machine would produce products by means of the PECVD process. The Company paid ECD approximately \$0.01 million in 2000, \$0.29 million in 2001 and nothing in 2002 and 2003 in connection with its conversion of PM 7 to the use of PECVD technology. A director of Southwall is the Chairman of ECD. As a requirement of the settlement reached with Portfolio Financial Servicing Company (See Note 10), the Company transferred possession of PM 7 to Portfolio Financial Servicing Company, the lien holder of PM 7. At December 31, 2002, the Company owed ECD approximately \$0.07 million in connection with the conversion of PM 7, which was represented by a note payable. A final payment of \$0.07 million was made in 2003.

During 1998, 1999, 2000, 2001 and 2002, we lent \$43,875, \$25,313, \$0, \$18,750 and \$14,700, respectively, to Thomas G. Hood, our President and Chief Executive Officer and a director, to permit him to exercise stock options that were about to expire at a time when he was not able to sell the shares issuable upon exercise to pay the exercise price. The indebtedness is represented by full recourse notes payables to us, which are due on June 30, 2003 each bearing interest at the rate of 7.0% per annum. The largest amount of indebtedness outstanding under these notes at any time during 2003 was \$130,731, including interest. While the board of director's intention was to enforce collection of the notes, on June 30, 2003, the Company's board of directors forgave all of the outstanding loans, totaling \$0.13 million including interest, in lieu of a bonus earned which otherwise would have been paid in cash. The Company recorded this transaction as compensation expense during the second quarter of 2003.

NOTE 12—BALANCE SHEET DETAIL

	December 31,	
	2002	2003
	(in thousands)	
<u>Inventories, net:</u>		
Raw materials.....	\$ 3,703	\$ 2,677
Work-in-process	3,432	3,148
Finished goods	1,402	1,005
	<u>\$ 8,537</u>	<u>\$ 6,830</u>

	December 31,	
	2002	2003
	(in thousands)	
Property, plant and equipment, net:		
Land, buildings and leasehold improvements.....	\$ 10,297	\$ 7,737
Machinery and equipment.....	69,884	31,019
Furniture and fixtures.....	7,233	1,110
Construction-in-process.....	10,870	--
	<u>98,284</u>	<u>39,866</u>
Less - accumulated depreciation.....	(48,033)	(18,079)
Total property, plant and equipment.....	<u>\$ 50,251</u>	<u>\$ 21,787</u>

Depreciation and amortization expense for the years ended December 31, 2001, 2002 and 2003 was \$6.0 million, \$6.1 million, and \$6.0 million respectively. See Note 5 to the financial statements with respect to a government grant received to offset construction and equipment costs for the German subsidiary.

Restructuring costs.

In December 2002 we implemented a reduction in force at our Palo Alto location in December 2002, and elected to vacate certain buildings in Palo Alto. As a result of these actions, we incurred a restructuring charge of \$2.6 million in 2002 relating to employee severance packages and the remaining rents due on excess facilities in Palo Alto no longer occupied. In 2003, we recorded an accounting adjustment of \$65,000 as a result of modifications to the severance packages of certain employees. As part of the restructuring plan commenced in the fourth quarter of 2003, we implemented a reduction in force at our Palo Alto and closed our Tempe facilities; however, there were no restructuring charges recorded in the fourth quarter associated with this action.

The remaining outstanding obligations at December 31, 2003 are:

	Workforce Reduction	Excess Facilities	Total
	(in thousands)		
Balance at January 1, 2002.....	\$ --	\$ --	\$ --
Provisions.....	365.0	2,281.0	2,646.0
Cash payments.....	(240.0)	--	(240.0)
Balance at December 31, 2002.....	<u>\$ 125.0</u>	<u>\$ 2,281.0</u>	<u>\$ 2,406.0</u>
			--
			--
	Reduction	Facilities	Total
	(in thousands)		
Balance at January 1, 2003.....	\$ 125.0	\$ 2,281.0	\$ 2,406.0
Provisions.....	143.0	--	143.0
Adjustment to reserve.....	(65.0)	--	(65.0)
Cash payments.....	(203.0)	(712.0)	(915.0)
Balance at December 31, 2003.....	<u>\$ --</u>	<u>\$ 1,569.0</u>	<u>\$ 1,569.0</u>

Guarantees:

The Company establishes a reserve for warranties and sales returns for specifically identified, as well as, anticipated warranty claims based on warranty experience. As of December 31, 2003 our reserve for warranty and sales returns was as follows (in thousands):

	Balance at December 31, 2002	Provision	Utilized	Balance at December 31, 2003
	(in thousands)			
Accrued warranty.....	\$ 2,069	\$ 2,271	\$ (2,489)	\$ 1,851

Indemnification obligations.

The Company's By-Laws require it to indemnify its officers and directors, as well as those who act as directors and officers of other entities, against expenses, judgments, fines, settlements and other amounts actually and reasonably incurred in connection with any proceedings arising out of their services to the Company. The indemnification obligations are more fully described in the By-Laws (see Exhibit 3.2 of this document). The Company purchases insurance to cover claims made against its directors and officers. Since a maximum obligation is not explicitly stated in the Company's By-Laws and will depend on the facts and circumstances that arise out of any future claims, the overall maximum amount of the obligations cannot be reasonably estimated. Historically, the Company has not made payments related to these indemnifications and the estimated fair value of these indemnifications is not considered to be material.

As is customary in the Company's industry and as provided for in local law in the U.S. and other jurisdictions, many of the Company's standard contracts provide remedies to customers and other third parties with whom the Company enters into contracts, such as defense, settlement, or payment of judgment for intellectual property claims related to the use of its products. From time to time, the Company indemnifies customers, as well as suppliers, contractors, lessors, lessees, and others with whom it enters into contracts, against combinations of loss, expense, or liability arising from various triggering events related to the sale and the use of the Company's products and services, the use of their goods and services, the use of facilities and state of Company-owned facilities, and other matters covered by such contracts, usually up to a specified maximum amount. In addition, from time to time, the Company sometimes also provides protection to these parties against claims related to undiscovered liabilities, additional product liability, or environmental obligations. To date, claims made under such indemnifications have been insignificant and the estimated fair value of these indemnifications is not considered to be material.

NOTE 13– IMPAIRMENT OF LONG-LIVED ASSETS

During 2003, the Company experienced shortfalls in revenue compared to its budgeted and forecast revenues. In addition, in the third quarter of 2003, the Company determined that, due to reduced demand for its products, anticipated revenues through the remainder of 2003 and 2004 would be substantially below expected as well as historical levels. The Company believed that the reduced demand for its products was caused by the decline in PC sales worldwide, competition from alternative technologies in the automotive glass segment, as well as declines in certain residential and commercial construction markets as a result of the economic recession in the U.S. As the Company's U.S. operations have a higher operating cash break-even point compared to its Dresden operations, it believed that the lower anticipated revenues indicated that an impairment analysis of the assets of its U.S. operations was necessary at September 28, 2003. As a result of the Company's decision to close the Tempe operations in the fourth quarter, it concluded that a further impairment analysis of the long-lived assets of the U.S. operations was necessary at December 31, 2003. The Company, therefore, performed an evaluation of the recoverability of long-lived assets related to its U.S. business at September 28, 2003 and December 31, 2003 in accordance with the SFAS 144, "Accounting for the Impairment or Disposal of Long-Lived Assets". For long-lived assets to be held and used, the determination of recoverability is based on an estimate of undiscounted cash flows expected to result from the use and eventual disposition of the assets. The Company's evaluation concluded that the undiscounted expected future cash flows were less than the carrying values of these assets, and an impairment charge was required. The impairment charge represents the amount required to write-down long-lived assets to the Company's best estimate of fair value. For long-lived assets to be disposed of by sale or abandonment principally the long-lived assets located at the Tempe operation, the impairment loss is estimated as the excess of the carrying value of the assets over fair value. As a result of the Company's assessment it recorded a non-cash, impairment charge of \$19.4 million and \$8.6 million for the periods ended September 28, 2003 and December 31, 2003, respectively. The factors considered by the Company in performing this assessment included current operating results, trends, and prospects, the closure of its Tempe operation, as well as the effects of obsolescence, demand, competition, and other economic factors.

NOTE 14 – SUBSEQUENT EVENTS

The warrants described below are for common stock at an exercise price of \$0.01. The term of the warrants is five years from the date of issuance.

As a result of the nominal exercise price and the long term of the warrants, the warrant value approximates the value of the common stock on the date of issuance.

The quoted market price of the Company's common stock was not regarded as an appropriate basis for establishing warrant values, on account of the dilution of the stock and the thin trading of the stock. The fair value of the common stock was based on a Company wide valuation performed by management using accepted valuation methodologies.

Warrants Issued in Connection with the Second Guarantee

As discussed in Note 2, on January 15, 2004, in connection with the second guarantee from Needham for \$0.75 million and as additional incentive to complete the convertible note closing, the Company issued warrants for 941,115 shares of common stock. Management has determined the value of the guarantee and warrants at \$33,000 and \$367,000, respectively.

The Company recorded the amount of the warrant value equal to the fair value of the guarantee, \$33,000, as debt issuance costs to be amortized over the life of the line of credit. The residual value of the warrants, \$334,000, is recorded as non-operating expense in the first quarter of 2004, as representing an incentive to enter into additional definitive agreements for transactions to which Needham are not committed.

Warrants issued to PBF in connection the Guaranteed Loan Agreement

On January 19, 2004, PBF consented to a Guaranteed Loan Agreement, the issuance of a guarantee to the Company's obligations to Teijin by the Company's German subsidiary. In exchange for this consent, the Company issued 75,000 warrants to PBF with a fair value of \$34,000. The fair value of the warrants was recorded as non-operating expense in the first quarter of 2004.

Balance Sheet Classification of Warrants

EITF 00-19 identifies conditions necessary for equity classification for warrants. One condition is that a sufficient number of authorized and unissued shares exist at the classification assessment date to control settlement by delivering shares. In that evaluation, a company must compare (a) the number of currently authorized but unissued shares, less the maximum number of shares that could be required to be delivered during the contract period under existing commitments with (b) the maximum number of shares that could be required to be delivered under share settlement (either net-share or physical) of the contract. If the amount in (b) exceeds the amount in (a), share settlement is not within the control of the company and asset or liability classification is required.

On January 19, 2004, in addition to issuing warrants to PBF, the Company obligated itself to issue 1,568,000 of warrants to Needham and Dolphin, the Investors, as a result of entering into a debt agreement with Teijin, as detailed below. As a result, as of January 19, 2004, the Company had insufficient authorized and unissued shares to satisfy existing commitments, thereby triggering liability classification for all outstanding warrants.

The Company was required to re-measure all outstanding warrants as of January 19, 2004 and to transfer the fair value warrant value to liabilities with the difference between the equity carrying value and the re-measured fair value of the liability recorded as non-operating expense. The charge recorded on January 14, 2004 totaled \$151,000.

The warrants will continue to be classified as liabilities until shareholder approval for the increase in authorized shares occurs, at which point they will be re-measured and reclassified to equity, assuming all other conditions for equity classification are satisfied. The warrants were re-measured as of the end of the first quarter, resulting in a charge of \$23,000, which was recorded as non-operating expense on March 28, 2004.

Teijin Guaranteed Loan Agreement

On January 19, 2004, the Company entered into a Guaranteed Loan Agreement with Teijin to satisfy its claim for \$1,269,000. The debt is to be repaid over four years and is non-interest bearing. The Company performed an assessment under SFAS No.15, Accounting by Debtors and Creditors for Troubled Debt Restructurings and EITF 02-04, Debtors Accounting for a Modification or an Exchange of Debt Instruments in accordance with SFAS 15, to assess whether the debt restructuring constituted a troubled debt restructuring. The Company concluded that the debt restructuring was in fact a troubled debt restructuring as the Company was in financial difficulty and Teijin had granted a concession to the Company, under the definitions of such conditions in the EITF 02-04 guidance. The concession resulted from the non-interest bearing nature of the debt.

As the carrying value of the original debt approximates to the new debt and bears no interest, SFAS 15, requires no accounting as of the date of the restructuring. The carrying value of the debt will be reduced as payments are made. The current portion of term debt at December 31, 2003 has been calculated based on the payments stipulated under the settlement agreement in accordance with SFAS 6 "Classification of Short-Term Obligations Expected to be Refinanced", with the remaining balance classified as noncurrent.

Tempe Facility Lease Termination

On January 29, 2004, the Company agreed to a \$437,000 lease settlement, which represented the February and March 2004 lease payments plus a cash buy-out of \$368,000 for the remaining term of the lease, to be paid in installments through March 1, 2005. The Tempe facility was not vacated as of March 31, 2004, production machine No. 5 ("PM 5") and the Wet Coater remaining in the facility. The Company is obligated to pay monthly rent until PM 5 and the Wet Coater are removed.

Palo Alto Lease Amendment And Termination

On February 19, 2004, the Company signed an amendment to the lease for the Company headquarters building in Palo Alto ("Building 1") and a termination agreement for a second Palo Alto building ("Building 2"). Building 2 was vacated in 2002, and a restructuring liability recorded equal to the value of future lease payments

The termination Agreement released the Company from its obligations to pay rent for Building 2 in exchange for a lump sum payment of \$404,000 and a payment for restoration of the premises of \$101,000.

The amendment to the lease for Building 1 extended the lease to January 31, 2005 and reduced the monthly payment amount. In addition, at the end of the lease the Company is obligated to pay a balloon payment of \$1.4 million. The balloon payment can be deferred if the Company extends the lease for another year, with the balloon payment due at the end of the lease term reduced to the extent of lease payments made in the second year. The Company has the option to extend the lease and thereby defer and reduce the balloon payment through 2009.

In accordance with SFAS 13 the Company intends to record straight-line monthly lease expenses commencing in 2004 that will result in a liability balance at the end of the expected lease term that will equal the amount of the balloon payment at that date. The one-time payments and the restructuring liability as of the date of the lease amendment and termination associated with Building 2 will be factored into this calculation.

Debt Agreement With Lessor

On February 20, 2004, the Company reached a Settlement Agreement over sale-leaseback agreements entered into with a lessor formerly known as Matrix Funding Corporation. This agreement represents the settlement of the successors of Matrix claim against the Company. At December 31, 2003, the carrying value of the liability was \$4.5million (\$2.8 million of principal, plus \$1.7 million of accrued interest and tax). As a result of the settlement the Company is obligated to pay a lesser amount of \$2.0 million over five years at a stepped rate of interest.

The agreement included a confession of judgment, whereby the Company acknowledges that it owes damages of \$5.9 million in the event of payment defaults under the settlement agreement.

The Company performed an assessment under SFAS 15 and EITF 02-04 to assess whether the debt restructuring constituted a troubled debt restructuring.

The Company concluded that the debt restructuring was in fact a troubled debt restructuring as the Company was in financial difficulty and lessors had granted a concession to the Company, under the definitions of such conditions as set forth in EITF 02-04. The reduction in the amount of the debt indicated that a concession had been granted.

SFAS 15, requires an assessment of the total future cash payments specified by the new terms of the debt, including, principal, interest and contingent payments. If the payments are less than the carrying amount of the payable, the Company should reduce the carrying amount to an amount equal to the total future cash payments specified by the new terms and should recognize a gain on restructuring of payables equal to the amount of the reduction. In the assessment management factored in the \$5.9 million confession of judgment as a contingent payment, thereby eliminating any potential gain on restructuring. The carrying value of the debt remains on the balance sheet and the liability will be reduced as payments are made, with a potential gain to be recorded at the date of the final payment and the expiry of the confession of judgment. Based on a SFAS 5 determination, at the time the Company considers default probable, the liability would be increased to the \$5.9 million confession of judgment value. The current portion of term debt at December 31, 2003 has been calculated based on the payments stipulated under the settlement agreement in accordance with SFAS 6 "Classification of Short-Term Obligations Expected to be Refinanced", with the remaining balance classified as noncurrent.

Secured Convertible Promissory Notes

On February 20, 2004 the Company entered into Amended and Restated Definitive Agreements with the Investors and issued \$4.5 million of convertible notes. The material terms of the convertible notes are as follows:

- The notes are convertible, at the holders' option, into our Series A preferred stock at a conversion price of \$1.00 per share;
- The notes accrue interest at an annual rate of 10%, compounded daily;
- The notes are secured by a pledge of a portion of the stock of Southwall Europe GmbH; and

- The notes are due and payable on the earlier of: i) 45 days after failure of the stockholders to approve the increase in the authorized shares and ii) February 20, 2009.
- In addition, so long as any of the convertible notes are outstanding, the approval of the holders of a majority of the convertible notes will be required to effect certain corporate actions.

Series A Preferred Stock

The convertible notes are convertible into Series A shares, the material terms of which are as follows:

- **Dividends.** Each of the Series A shares will have a stated value of \$1.00 and will be entitled to a cumulative dividend of 10% per year, payable at the discretion of the Board of Directors. Dividends on the Series A shares shall accrue daily commencing on the date of issuance and shall be deemed to accrue whether or not earned or declared and whether or not there are profits, surplus or other funds legally available for the payment of dividends. Accumulated dividends, when and if declared by the Board, will be paid in cash.
- **Restrictions.** So long as any Series A shares are outstanding, unless all accrued dividends on all Series A shares have been paid, we are prohibited from taking certain actions, including redeeming or purchasing shares of our common stock and paying dividends on our common stock.
- **General Voting Rights.** Except under certain circumstances or as otherwise provided by law, the holders of Series A shares have no voting rights. The approval of the holders of a majority of the Series A shares voting separately as a class will be required to effect certain corporate actions.
- **Liquidation Preference.** Upon a liquidation or dissolution of Southwall, the holders of Series A shares are entitled to be paid a liquidation preference out of assets legally available for distribution to our stockholders before any payment may be made to the holders of common stock. The liquidation preference is equal to the stated value of the Series A shares, which is \$1.00 per share, plus any accumulated but unpaid dividends. Mergers, the sale of all or substantially all of our assets, or the acquisition of Southwall by another entity and certain other similar transactions may be deemed to be liquidation events for these purposes.
- **Conversion.** Each of the Series A shares is convertible into common stock at any time at the option of the holder. Each of the Series A shares is convertible into a number of shares of common stock equal to the sum of its stated value plus any accumulated but unpaid dividends, divided by the conversion price of the Series A shares. The conversion price of the Series A shares is \$1.00 per share and is subject to adjustment in the event of any stock dividend, stock split, reverse stock split or combination affecting such shares. The Series A shares also have antidilution protection that adjusts the conversion price downwards using a weighted-average calculation in the event we issue certain additional securities at a price per share less than the closing price per share of our common stock on any stock exchange on which our common stock is listed. Each Series A share is initially convertible into one share of common stock. If the closing price of our common stock on any stock exchange on which our common stock is listed is \$4.00 or more per share (subject to appropriate adjustment if a stock split, reverse split or similar transaction is effected) for 30 consecutive days, all outstanding Series A shares shall automatically be converted.
- **Redemption.** The Series A shares are not redeemable.

Issuance Of Warrants In Connection With The Convertible Debt

In connection with the issuance of the convertible notes the Company issued warrants for 1,694,007 shares of common stock.

The terms of the original investment agreement were such that the Investors were entitled to receive the 752,892 warrants associated with the second tranche of equity regardless of whether the second equity closing occurred. As the Company has an enforceable obligation to issue the warrants and because the terms of the warrant were known as of the date of the investor agreement, the warrants were considered issued for accounting purposes as of December 18, 2003. As discussed in Note 8, the Company valued the 752,892 warrants at \$309,000 and recorded the amount as non-operating expense in the fourth quarter of 2003. As a result, the number of warrants issued for accounting purposes on February 20, 2004, in connection with the issuance of convertible debt, is reduced by 752,892, from 1,694,007 to 941,115.

The fair value of the 941,115 warrants was determined by management at \$414,000 and is recorded as discount on the convertible notes in the final quarter of 2004 and is being expensed as interest expense over the life of the debt instrument using the effective interest rate method. The warrants will be classified as liabilities (see above discussion of warrant balance sheet classification).

Embedded Derivatives

The features of the Convertible Notes included the right to convert the Notes into Series A preferred stock ("Conversion Right"). This right was evaluated by the Company to determine if it gave rise to an embedded derivative instrument that would need to be accounted for separately in accordance with SFAS 133 and EITF 00-19.

The Company concluded that the Conversion Right qualified as an embedded derivative and did not meet the SFAS 133 scope exceptions. Therefore, the Company bifurcated and fair valued the conversion feature. The fair value of the Conversion Right was determined by management to be \$820,000 and is recorded in the first quarter of 2004 as a discount on the convertible notes and will be amortized as interest expense over the life of the debt instrument using the effective interest rate method.

The embedded derivative will be classified as a liability and will be re-measured at the end of the first quarter of 2004 and at subsequent period ends until shareholder approval for the increase in authorized shares occurs, at which point the Company will cease accounting for the Conversion Right at fair value separate from the debt. The re-measurement at the end of the first quarter resulted in a gain of \$39,000 to non-operating expense recorded in the first quarter of 2004.

Warrants Issued To The Investors In Connection With Equity Or Debt Issuances To Creditors

The investment agreement included terms that required the Company to issue additional warrants to the Investors if, as part of the restructuring efforts, the Company issued any equity instruments, notes or other debt instruments to any creditor, landlord, employee, director, agent or consultant.

Following the issuance of equity instruments the Company is required to issue to each of the Investors warrants in such amounts as would allow the investors to maintain their aggregate ownership percentage (on a fully-diluted basis) as if such issuance had not occurred. Such warrants represent anti-dilution protection for the investor and are therefore not valued as a stand-alone instrument.

Following note or debt issuances to creditors the Company is required to issue additional warrants to each of the Investors representing the right to purchase that number of shares of common stock equal to the product of (x) 1.25 and (y) the original principal amount of such note or debt instrument. Such warrants represent penalties for the Company failing to eliminate obligations to creditors, and are regarded as issued for accounting purposes as of the execution date of the agreement triggering legal entitlement.

In the first quarter of 2004, additional warrants totaling 9,848,750 were triggered by note or debt issuances. The Company determined the fair value of the warrants to be \$4.3 million. The fair value of the warrants was recorded as non-operating expense in the first quarter of 2004.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None

ITEM 9A. CONTROLS AND PROCEDURES

(a) *Evaluation of Disclosure Controls and Procedures.* Our management, with the participation of our chief executive officer, or CEO, and Chief Financial Officer, or CFO, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act) as of December 31, 2003. In designing and evaluating our disclosure controls and procedures, our management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and our management necessarily applied its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on this evaluation, our CEO and CFO concluded that, as of December 31, 2003, our disclosure controls and procedures were (1) designed to ensure that material information relating to us, including our consolidated subsidiaries, is made known to our CEO and CFO by others within those entities, particularly during the period in which this report was being prepared and (2) effective, in that they provide reasonable assurance that information required to be disclosed by us in the reports we file or submit under the Securities Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

(b) *Changes in Internal Controls.* In connection with its audit of our consolidated financial statements for the year ended December 31, 2003 PricewaterhouseCoopers LLP identified significant deficiencies, which represents a material weakness. The material weakness was caused by a reduction in force that was initiated in the second and fourth quarters of 2003 and related to the inadequacy of review and supervision of the preparation of accounting records and the untimely reconciliation of certain accounts.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF REGISTRANT

Directors of Registrant

There are currently eight members of our Board of Directors. As a condition to the investments by the investors under the Investment Agreement, dated December 18, 2003, among us and Needham and Dolphin, we placed George Boyadjieff on our Board of Directors as Chairman. Robert C. Stempel has decided not to stand for re-election to the Board. There are no family relationships among any of our executive officers or directors.

The following information as of March 31, 2004, is furnished with respect to our directors. The information presented includes information each director has given us about his or her age, all positions he or she holds with us, his or her principal occupation and business experience during the past five years, and the names of other publicly-held companies of which he or she serves as a director.

Name	Age
William A. Berry (2)	65
George Boyadjieff, Chairman	65
Thomas G. Hood	48
Bruce M. Jaffe (2)	60
Jami K. Nachtsheim (1)	45
Joseph B. Reagan (1)	69
Walter C. Sedgwick (1)	57
Robert C. Stempel (2)	70

- (1) Member of the Human Resources Committee.
(2) Member of the Audit Committee.

Mr. Berry has served on our Board of Directors since May 2003. Since July 2003, Mr. Berry has served as a Special Projects Manager of EPRI, the Electric Power Research Institute. From April 1997 to July 2003, Mr. Berry served as the Chief Financial Officer of EPRI. EPRI is a non-profit energy research organization providing science and technology-based solutions to global energy companies. From 1992 to March 1996, Mr. Berry was the Senior Vice President and Chief Financial Officer of Compression Labs, Inc., a manufacturer of visual communications systems based on digital technology, and from 1989 to 1992 was the President of Optical Shields, Inc. Mr. Berry worked at Raychem Corporation from 1967 until 1988, where he was a Corporate Vice President and Chief Administrative Officer from 1985 to 1988. He is a director of FAFCO, Inc., a manufacturer of solar pool heating systems. Mr. Berry holds a BS in industrial engineering and an MBA from Stanford University.

Mr. Boyadjieff joined our Board of Directors as Chairman on December 19, 2003. Mr. Boyadjieff was the Chief Executive Officer of Varco International, Inc., a diversified oil service company, from 1991 through 2002 and the chairman of Board of Directors of Varco from 1998 through 2003. Mr. Boyadjieff retired from active leadership of Varco in 2003. Mr. Boyadjieff holds a BS and MS in mechanical engineering from the University of California at Berkeley.

Mr. Hood has served as our President and Chief Executive Officer since July 1998 and as a member of our Board of Directors since March 1998. From March 1998 until July 1998, he served as Interim President and Chief Executive Officer. From July 1996 to March 1998, he served as Senior Vice President, General Manager, Energy Products Division. From January 1995 to July 1996, he was Vice President, General Manager, International Operations, and from October 1991 to January 1995, he was Vice President, Marketing and Sales. He is the inventor of record on ten of our patents. Mr. Hood has an MS degree in Mechanical Engineering from New Mexico State University.

Mr. Jaffe has served as a member of our Board of Directors since April 2003. Since November 2000, Mr. Jaffe has served on the Audit Committee and Board of Directors of Metron Technology, a leading global provider of marketing, sales, service and support solutions to semiconductor materials and equipment suppliers and semiconductor manufacturers. Since August 2000, Mr. Jaffe has served on the Audit Committee and Board of Directors of Pemstar, Inc., a provider of engineering, manufacturing and fulfillment services. Since April 2003, Mr. Jaffe has served as Vice President and Chief Financial Officer of LogicVision, Inc., a software developer for embedded test technology for semiconductors. From July 1997 to July 1999, Mr. Jaffe served as the Chief Financial Officer of Bell Microproducts, an international, value-added provider of high-technology products, solutions, and services to the

industrial and commercial markets. From October 1967 to November 1996, Mr. Jaffe served in a variety of management positions with Bell Industries including, President, Chief Operating Officer and Chief Financial Officer. He was also a director of Bell Industries from 1981 to 1996. Mr. Jaffe holds a BS in Business Accounting from the University of Southern California.

Ms. Nachtsheim has been a member of our Board of Directors since April 2003. Ms. Nachtsheim retired in June 2000 after 20 years with Intel Corporation, a semiconductor chip maker. Ms. Nachtsheim served in a variety of positions at Intel, most recently as Corporate Vice President of the Sales and Marketing Group and Director of Worldwide Marketing, from 1998 to 2000 until her retirement. From January 2003 to December 2003, Ms. Nachtsheim served on the Board of Directors of Vixel Corporation, a creator of disruptive storage networking technologies. Ms. Nachtsheim is a graduate of Arizona State University with a bachelor degree in Business Management.

Dr. Reagan has served as a member of our Board of Directors since June 1993 and was Chairman of the Board of Directors from May 2000 until December 2003. He previously served as a director from October 1987 through May 1992. Dr. Reagan is a technology and senior management consultant to industry and to the United States Government. He retired in 1996 after 37 years with the Lockheed Martin Corporation where he was a Corporate Vice President and General Manager of the Research and Development Division of the Missiles and Space Company. Dr. Reagan holds BS and MS degrees in Physics from Boston College and a PhD in Space Science from Stanford University.

Mr. Sedgwick has served as a member of our Board of Directors since January 1979. Mr. Sedgwick has been a private investor since 1994.

Mr. Stempel has served as a member of the Company's Board of Directors since May 2000. He is Chairman of Energy Conversion Devices, Inc. (ECD), an energy and information company headquartered in Troy, Michigan. In February 2004, Mr. Stempel was appointed Chief Executive Officer of ECD. Mr. Stempel retired as Chairman and Chief Executive Officer of General Motors Corporation in November 1992. He was named Chairman and Chief Executive Officer in August 1990. Prior to serving as Chairman, he had been President and Chief Operating Officer of General Motors since September 1987.

Executive Officer of Registrant

The names, ages and positions of our current directors and executive officers are as follows:

Name	Age	Position
Thomas G. Hood	48	President, Chief Executive Officer and Director
Maury Austin	46	Interim Chief Financial Officer and Secretary
Sicco W.T. Westra	53	Senior Vice President, Business Development
Wolfgang Heinze	55	Vice President, General Manager Southwall Europe GmbH
John Lipscomb	54	Vice President, Corporate Controller
Dennis Capovilla	44	Vice President, Sales

Thomas G. Hood has served as our President and Chief Executive Officer since July 1998 and as a member of our board of directors since March 1998. From March 1998 until July 1998, he served as Interim President and Chief Executive Officer. From July 1996 to March 1998, he served as Senior Vice President, General Manager, Energy Products Division. From January 1995 to July 1996, he was Vice President, General Manager, International Operations, and from October 1991 to January 1995, he was Vice President, Marketing and Sales. He is the inventor of record on ten of our patents. Mr. Hood has an MS degree in Mechanical Engineering from New Mexico State University.

Maury Austin has been our interim Chief Financial Officer and Secretary since February 2004. From 2000 until 2003, he served as Chief Financial Officer for Vicinity Corporation, a supplier of products that enable businesses and governments to market local availability of their products. From 1999 until 2000, he served as the Chief Financial Officer of Symmetricom, Inc., a supplier of atomic clocks and network synchronization and timing solutions. From 1997 until 1999, he served as the Chief Financial/Operating Officer of Flashpoint Technology, Inc., a provider of software for digital photography and imaging devices. Mr. Austin holds an MBA from Santa Clara University and a B.S in Business Administration from University of California at Berkeley.

Sicco W. T. Westra has been Senior Vice President, Business Development since June 2002. From August 1998 until June 2002, he was the Senior Vice President, Engineering and Chief Technical Officer of Southwall. From February 1998 until August 1998, he served as the Director of Global Production Management for Applied Materials, Inc., a provider of products and services to the semiconductor industry. From March 1994 to August 1998, he served as a Manager of Business Development for BOC

Coating Technology, Inc., a manufacturer of sputter-coating equipment. Dr. Westra holds a PhD. from the University of Leiden in the Netherlands.

Wolfgang Heinze joined Southwall in January 1999 as Plant Manager of our Dresden factory. In December 2000, Mr. Heinze was promoted to the position of Vice President, General Manager Southwall Europe GmbH. Prior to joining Southwall, Mr. Heinze had been the Chief Executive Officer of FUBA Printed Circuits, GmbH, a manufacturer of printed circuit boards, from February 1991 to April 1998. Mr. Heinze has a MD of Commercial Science from the Technical University in Merseburg, Germany.

Dr. Bruce M. Lairson joined Southwall in August 2001 as Director of New Products Engineering. In May 2002, he was promoted to the position of Vice President and Chief Technology Officer. Prior to joining Southwall, Mr. Lairson had been the Engineering Project Manager at Maxtor Inc., a manufacturer of hard disk drives, from June 2000 to July 2001. From March 1999 to June 2000, he served as a Director of Development at Komag Inc. and Ultracard Inc. From December 1997 to April 1999, he served as the Director of Advanced Technology at Western Digital Inc. Mr. Lairson holds a ME in Applied and Engineering Physics from Cornell University and a MS and PhD in Materials Science from Stanford University.

John Lipscomb has been our Vice President, Corporate Controller since November 2000. From March 1996 to November 2000, he served as a Finance Director with Informix Software, a developer of relational databases and with ABB LTD, a developer of software applications for the power utility industry. From June 1988 to February 1996, he served in various senior level financial management positions with Apple Computer, a computer manufacturer. Mr. Lipscomb has a B.A. degree in Accounting from the University of Massachusetts at Amherst.

Dennis Capovilla joined Southwall in July 2003. Dennis came to Southwall from Palm, Inc., a manufacturer of personal digital assistant devices, where he was the Vice President, Enterprise sales since 2002. From 1997 to 2002 he was with FATBRAIN, LLC, an e-commerce provider of books and information products, as the President and CEO from 2000-2002, the President and COO from 1999 to 2000, and the VP of Sales and Business Development from 1997-1999. From 1993-1997, Dennis was with Apple Computer, Inc., a computer manufacturer, as the Director, Americas Imaging Division and Worldwide Printer Supplies (1996-1997), Manager Printer Supplies Business unit (1995-1996) and as Worldwide Product Marketing Manager, Imaging Systems (1993-1995). Prior, Dennis held various Sales and Marketing Management positions with Versatec, Inc. and Xerox Corporation. Dennis holds a B.S. in Marketing from the University of Santa Clara.

Section 16(a) Beneficial Ownership Reporting Compliance Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our directors and executive officers, and persons who own more than ten percent of our common stock, to file reports with the Securities and Exchange Commission disclosing their ownership of our stock and changes in such ownership. Copies of such reports are also required to be furnished to us. To our knowledge, based solely on review of the copies of the above-mentioned reports furnished to us and written representations that no other reports were required, during 2003, and all other such filing requirements were complied with in a timely fashion.

Audit Committee

The current members of our Audit Committee are Messrs. Stempel (Chairman) and Berry and Jaffe. Messrs. Berry and Jaffe qualify as an “audit committee financial expert” under SEC rules. Each of Messrs. Stempel and Berry and Jaffe is an “independent director” under the Nasdaq rules governing the qualifications of the members of audit committees. In addition, our Board of Directors has determined that each member of the Audit Committee is financially literate. None of Messrs. Stempel or Berry or Jaffe serve on the audit committees of more than two other public companies. The Audit Committee met 3 times during 2003.

Code of Ethics

We have adopted a code of ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, and persons performing similar functions. We filed our code of ethics as an exhibit to our Annual Report on Form 10-K filed on April 14, 2004. In addition, we will provide to any person, without charge, upon request, a copy of our code of ethics. Please contact our Director of Human Resources, Southwall Technologies Inc., 3975 East Bayshore Road, Palo Alto, California 94303, if you would like a copy mailed to you.

ITEM 11. EXECUTIVE COMPENSATION

Director Compensation

During 2003, we paid each of our non-employee directors, other than Dr. Reagan, the Chairman during 2003 until December 19th, an annual fee of \$7,000 for his or her services as a director. We paid an annual fee of \$14,000 to the Chairman. The directors' fees are payable in shares of our common stock at the directors' option. None of the directors elected to take his or her annual fees for 2003 in stock. In addition, each non-employee director receives \$1,000 plus expenses for each Board meeting attended. Non-employee directors also receive a fee of \$500 for each Board meeting held via teleconference. Non-employee directors who serve on committees of the Board also receive \$600 for each committee meeting attended. Committee chairmen receive \$750 for each committee meeting attended. In October 2003, the directors elected to receive their fees in the form of shares of our common stock, in lieu of cash. In total, they will receive 82,880 shares of common stock as compensation for fees in 2003. Mr. Boyadjieff joined our Board on December 19, 2003, as Chairman. We have agreed to grant Mr. Boyadjieff options to purchase 390,000 shares of our common stock upon the amendment of our charter to increase the number of shares reserved for issuance thereunder.

Directors may also receive options to purchase shares of common stock under our 1997 Stock Incentive Plan. During 2003, the non-employee Board members received options to purchase the following number of shares, all at an exercise price of \$0.96 per share: Mr. Murakami—no shares; Dr. Reagan—9,599 shares; Mr. Sedgwick—2,560 shares and Mr. Stempel—2,560 shares. These directors also received options to purchase the following number of shares, all at an exercise price of \$2.28 per share: Mr. Murakami—no shares; Dr. Reagan—14,000 shares; Mr. Sedgwick—7,000 shares and Mr. Stempel—7,000 shares. The following three non-employee directors joined the Board in April 2003 and each received options at an exercise price of \$0.98 per share: Mr. Berry – 20,000 shares; Mr. Jaffe – 20,000 shares; and Ms. Nachtsheim – 20,000 shares. For a summary of option grants we made to Mr. Hood in 2003, please see “Executive Officer Compensation—Option Grants in Last Fiscal Year” below. The following table sets forth information required under the applicable SEC rules about the compensation for each of the last three fiscal years of our Chief Executive Officer and our four most highly compensated other executive officers who were serving as officers on December 31, 2003.

Name and Principal Position	Year	Annual Compensation		Long-Term Compensation Awards	
		Salary (1)	Bonus (1)	Securities	All Other
				Underlying Options	Compensation (2)
Thomas G. Hood President and Chief Executive Officer	2003	\$ 290,354	\$ 130,731	60,000	\$ 1,000
	2002	297,513	-	50,000	1,000
	2001	270,000	123,571	50,000	1,000
Wolfgang Heinze Vice-President, General Manager Dresden Operations	2003	221,224	28,482	10,000	-
	2002	163,660	70,545	20,000	-
	2001	175,910	-	-	-
Michael E. Seifert (3) Senior Vice President and Chief Financial Officer	2003	214,477	-	25,000	-
	2002	-	-	-	-
	2001	-	-	-	-
Sicco W. T. Westra Senior Vice-President Sales and Marketing	2003	211,650	-	15,000	529
	2002	219,469	-	20,000	516
	2001	195,000	50,821	30,000	1,000
Bruce M. Lairson Vice President, Product and Technology Development	2003	185,054	-	25,000	1,000
	2002	161,846	-	34,000	1,000
	2001	47,961	35,018	20,000	1,000

(1) The amounts listed under Salary and Bonus includes amounts deferred pursuant to our 401(k) Plan.

(2) The amounts listed under “All Other Compensation” consist of our matching contributions under our 401(k) Plan.

(3) Mr. Seifert joined Southwall in December 2002 as Senior Vice President, Chief Financial Officer and Secretary. Mr. Seifert resigned from Southwall in January 2004.

Option Grants in Last Fiscal Year

The following table contains information concerning each stock option we granted to the named executive officers during 2003.

Name	Number of Securities Underlying Options Granted (1)	Percent of Total Options Granted to Employees in Fiscal Year	Exercise Price (\$/Sh) (2)	Expiration Date	Annual Rates of Stock Price Appreciation for Option Term (3)	
					5%	10%
Thomas G. Hood	60,000	8.3 %	\$2.28	02/25/2013	\$86,033	\$218,024
Wolfgang Heinze	10,000	1.4 %	2.28	02/25/2013	\$14,339	\$36,337
Michael E. Seifert	25,000	3.5 %	2.28	02/25/2013	\$35,847	\$90,843
Sicco W.T. Westra	15,000	2.1 %	2.28	02/25/2013	\$21,508	\$54,506
Bruce M. Lairson	25,000	3.5 %	2.28	02/25/2013	\$35,847	\$90,843

- (1) Option grants were made under our 1997 Stock Incentive Plan. All of the options vest in four equal annual installments, beginning one year after the grant date. In the event of certain corporate transactions such as an acquisition or sale of the our assets, the outstanding options of the named executive officers will become immediately exercisable for fully vested shares of common stock, unless the options are assumed or substituted with a comparable option by the acquiring company or its parent. In any event, the our Human Resources Committee may accelerate the vesting of outstanding options upon certain corporate transactions or involuntary terminations following a corporate transaction.
- (2) We granted all options at an exercise price per share equal to the fair market value of the common stock on the date of grant. The exercise price may be paid in cash or cash equivalents, in shares of the underlying common stock valued at fair market value on the exercise date or in a same-day sale program with the assistance of a designated brokerage firm.
- (3) The potential realizable values at assumed 5% and 10% annual rates of compounded stock price appreciation for the terms of the options are based on the fair market value or deemed fair market value of the common stock used by us for accounting purposes, as applicable, and do not represent our estimates or projections of its future stock prices. Actual gains, if any, on stock option exercises will be dependent on the future performance of our common stock.

Fiscal Year-End Option Values

The following table sets forth information required under applicable SEC rules concerning the number and value of unexercised stock options held as of December 31, 2003, by each of the named executive officers. None of the named executive officers exercised any options in 2003. We determined the value of unexercised in-the-money options by calculating the difference between the exercise price per share payable upon exercise of these options and the closing price of our common stock on the Nasdaq National Market at December 31, 2003, which was \$0.96 per share.

Name	Number of Securities Underlying Unexercised Options at Fiscal Year-End		Value of Unexercised In-the-Money Options at Fiscal Year-End	
	Exercisable	Unexercisable	Exercisable	Unexercisable
	Thomas G. Hood	244,502	125,714	\$ -
Wolfgang Heinze	29,465	25,535	-	-
Michael E. Seifert	18,750	81,250	-	-
Sicco W.T. Westra	91,015	36,785	-	-
Bruce M. Lairson	18,500	60,500	-	-

Securities Authorized for Issuance Under Equity Compensation Plans

The following table sets forth information as of December 31, 2003, regarding the 1997 Stock Incentive Plan, 1998 Stock Option Plan for Employees and Consultants and 1997 Employee Stock Purchase Plan. Our stockholders previously approved the 1997 Stock Incentive Plan and the 1997 Employee Stock Purchase Plan and all amendments that were subject to stockholder approval. On March 19, 2004, our Board of Directors adopted an amendment to the 1997 Stock Incentive Plan to increase the number of shares reserved for issuance thereunder to 6,150,000, to increase the number of option shares per calendar year that one individual may receive to 500,000 and to eliminate the evergreen provisions that automatically on the first day of each year have increased the number

of shares available for issuance, and directed that such amendment be submitted to the stockholders for their approval. We intend to seek such approval at a special meeting of our stockholders.

The 1998 Plan has not previously been approved by our stockholders. The 1998 Plan, adopted by our Board of Directors in August 1998, reserved an aggregate of 250,000 shares of common stock for issuance, and the number of shares reserved for issuance under the plan automatically increases at the beginning of each year by 150,000. Only non-officer employees and consultants and other independent advisors are eligible to receive grants under the 1998 Plan. No one person in the 1998 Plan may receive options for more than 50,000 shares in any calendar year. The 1998 Plan is administered by the Human Resources Committee, which has the authority to construe and interpret the plan and any agreement made under the 1998 Plan, grant awards and make all other determinations necessary or advisable for the administration of the 1998 Plan. The 1998 Plan is divided into two separate equity programs: a discretionary option grant program and a stock issuance program. Under the discretionary option grant program eligible persons may be granted options to purchase common stock. The exercise price, which shall be at least 85% of fair market value of our common stock, the vesting, the term and other provisions of such options are determined by the Human Resources Committee. The vesting of options held by non-officer employees under the 1998 Plan automatically accelerates upon certain change of control transactions unless such options are assumed or replaced by the surviving corporation. Under the stock issuance program of the 1998 Plan, eligible persons may be issued shares of common stock directly, either through the immediate purchase of such shares or as a bonus for services rendered to us. The purchase price for shares under the stock issuance program will be at least fair market value of our common stock. The Human Resources Committee will determine the vesting, if any, and other provisions of such stock issuances. Any rights of us to repurchase shares under the stock issuance program will terminate automatically upon certain change of control transactions. On March 19, 2004, our Board of Directors adopted an amendment to the 1998 Plan to increase the number of shares reserved for issuance thereunder to 2,400,000, to increase the number of option shares per calendar year that one individual may receive to 100,000 and to eliminate the evergreen provisions that automatically increase the number of shares available for issuance, and directed that such amendment be submitted to the stockholders for their approval. We intend to seek approval by our stockholders of the 1998 Plan, as amended, at a special meeting of our stockholders.

	Number of Shares of Common Stock to be Issued Upon Exercise of Outstanding Stock Options (a)	Weighted-Average Exercise Price of Outstanding Stock Options (b)	Number of Shares of Common Stock Remaining Available for Future Issuance (excluding those in column a) Under the Stock Option Plans (c)
Plan Approved by Stockholders:			
1997 Stock Incentive Plan (1)	1,505,549	\$4.08	149,874
1997 Employee Stock Purchase Plan (2)		Not applicable	
Plans Not Approved by Stockholders:			
1998 Stock Option Plan for Employees and Consultants (1)	582,110	\$5.20	300,663
Total	<u>2,087,659</u>	<u>\$4.39</u>	<u>450,537</u>

- (1) In addition to the issuance of common stock options, each of the 1997 Plan and the 1998 Plan allows for the issuance of common stock and restricted common stock.
- (2) A total of 325,000 shares of common stock are reserved for issuance under the 1997 Employee Stock Purchase Plan. Through December 31, 2003, we had issued 247,334 shares under the 1997 Employee Stock Purchase Plan. In addition, an offering period under the Plan is currently in effect and scheduled to expire on May 31, 2004, on which date we will issue an additional number of shares to be determined at such time.

Severance Agreements

We have a severance policy that covers all of our officers, including the named executive officers (other than Mr. Seifert, who ceased to be covered by the policy upon his resignation from Southwall in January 2004), and some of our key employees, under which they may become entitled to special benefits in connection with certain changes in control of Southwall affected by merger, liquidation or tender offer.

Under the policy, each participant may become entitled to a lump sum severance payment upon his or her involuntary termination within 24 months after a change in control. The cash payment will be equal to (i) in the case of our chief executive officer, two times the sum of the chief executive officer's annual rate of base salary in effect at the time of his or her involuntary

termination plus the bonuses earned by him or her for the immediately preceding fiscal year and (ii) in the case of each other participant, between one and one and one-half times, as determined by our Board of Directors, the sum of the participant's annual rate of base salary in effect at the time of his or her involuntary termination plus the bonuses earned by him or her for the immediately preceding fiscal year. In addition, the amount paid to each participant will be grossed up if the amount received by the participant is subject to federal excise tax as an "excess parachute payment."

If benefits had become due as of December 31, 2003 under the severance policy, the maximum cash amounts payable to each of the named executive officers would be as follows: Mr. Hood, \$550,000; Mr. Heinze, \$331,835; Mr. Lairson \$210,000; Mr. Seifert, \$300,000; and Mr. Westra, 292,500.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

Our Human Resources (compensation) Committee is composed of Joseph B. Reagan, Jami K. Nachtsheim and Walter C. Sedgwick. Neither Dr. Reagan nor Ms. Nachtsheim nor Mr. Sedgwick has at any time since our formation been an officer or employee of Southwall. None of our executive officers currently serves, or in the past has served as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our Board of Directors or Human Resources Committee.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth material information regarding beneficial ownership of our common stock as of March 24, 2004 by:

- each person who we know to own beneficially more than 5% of our common stock;
- each of our executive officers, for whom compensation information is provided elsewhere in this Annual Report on Form 10-K/A;
- each director and nominee for director; and
- all executive officers and directors as a group.

Except as noted below, the address of each person listed on the table is c/o Southwall Technologies Inc., 3975 East Bayshore Road, Palo Alto, California 94303, and each person has sole voting and investment power over the shares shown as beneficially owned, except to the extent authority is shared by spouses under applicable law. Beneficial ownership is determined in accordance with the rules of the SEC. The information below regarding persons beneficially owning more than 5% of our common stock is based solely on public filings made by such persons with the SEC through March 24, 2004.

Name and Address	Common Stock Beneficially Owned (1)	Percent of Outstanding Shares (1)
Needham Investment Management, LLC 445 Park Avenue New York, New York 10022	2,200,067	17.5 %
Needham & Company, Inc (7). 445 Park Avenue New York, New York 10022	1,882,230	13.0 %
Needham Capital Partners II, L.P. (7) 445 Park Avenue New York, New York 10022	3,312,406	20.9 %
Needham Capital Partners III, L.P. (7) 445 Park Avenue New York, New York 10022	5,798,843	31.6 %
Needham Capital Partners IIIA, L.P. (7) 445 Park Avenue New York, New York 10022	598,878	4.6 %
Needham Capital Partners III (Bermuda), L.P. (7) 445 Park Avenue New York, New York 10022	1,155,727	8.4 %
Needham Capital Partners II (Bermuda), L.P. (7) 445 Park Avenue New York, New York 10022	464,317	3.6 %
Dolphin Direct Equity Partners, L.P. (7) 129 East 17th Street New York, New York 10003	5,498,141	30.5 %
Wellington Management Company, LLP 75 State Street Boston, Massachusetts 02109	1,000,000	8.0 %
Teijin Limited 6-7, Minami-honmachi, 1-Chome Chuo-ku, Osaka 541, Japan	667,696	5.3 %
William A. Berry	5,000	*
George Botadjieff	-	*
Jami K. Nachtsheim	5,000	*
Bruce M. Jaffe	5,000	*
Joseph B. Reagan (2)	92,867	*
Walter C. Sedgwick (3)	419,829	3.3 %
Robert C. Stempel (5)	20,844	*
Thomas G. Hood (4)	300,627	2.3 %
Wolfgang Heinze (5)	31,965	*
Bruce M. Lairson (5)	5,477	*
Michael Seifert (5)	18,750	*
Sicco W.T. Westra (5)	95,965	*
All current officers and directors as a Group (16 persons) (6)	1,033,685	7.9 %

* Less than 1%

- (1) The number of shares of common stock deemed outstanding consists of (i) 12,548,192 shares of common stock outstanding as of March 24, 2004, and (ii) shares issuable pursuant to outstanding options, warrants or convertible notes held by the respective persons or group that are exercisable within 60 days of March 24, 2004, as set forth below.
- (2) Includes options to purchase 62,496 shares that are exercisable within 60 days of March 24, 2004, 30,371 shares held in a family limited partnership, and 13,696 shares held in a trust.
- (3) Includes options to purchase 49,764 shares that are exercisable within 60 days of March 24, 2004, 99,000 shares held by two public foundations of which Mr. Sedgwick is an officer, 17,272 shares held by his son, and 6,000 shares held in a trust of which Mr. Sedgwick is a trustee.

- (4) Includes options to purchase 259,502 shares that are exercisable within 60 days of March 24, 2004, and 100 shares held by his son and 100 shares held by his daughter
- (5) Consists of options that are exercisable within 60 days of March 24, 2004.
- (6) Includes options to purchase an aggregate of 560,497 shares that are exercisable within 60 days of March 24, 2004, the shares held in family limited partnership and trust described in note 2 above, the shares held in trust and by Mr. Sedgwick's son described in note 3 above, and the shares held by Mr. Hood's son and daughter described in note 4 above.
- (7) Consists of shares of common stock issuable upon conversion of Series A shares (issuable upon conversion of convertible notes) and upon exercise of warrants that were issued in connection with the investment agreement described above in "Item 7 – Overview".

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Teijin Limited

On April 9, 1997, we signed a comprehensive set of collaborative agreements with one of our major suppliers of raw materials, Teijin Limited. The agreements provided for, among other things, the purchase by Teijin of 667,000 shares of our common stock at a price of \$7.50 per share; a guarantee by Teijin of a \$10 million loan for Southwall; and an agreement to collaborate to achieve closer marketing and product development ties between the two companies. We agreed to pay a loan guarantee fee to Teijin at the rate of .5625% per year on the outstanding balance of the loan guaranteed by Teijin. We paid a loan guarantee fee of approximately \$0.1 million to Teijin during 2003. Pursuant to letter agreements dated March 28, 2002 and May 9, 2002, between Teijin and us, we repaid \$2.5 million of the loan guaranteed by Teijin with a portion of the proceeds of our public stock offering in 2002. On November 5, 2003, we defaulted on the debt supported by the Teijin guarantee and Teijin honored its guarantee by satisfying the obligation. Under the terms of Teijin's guarantee, we were obligated to immediately repay the amounts paid by Teijin. As part of our restructuring plan, we entered into an agreement with Teijin to satisfy Teijin's claim. The agreement included a payment schedule that spread the payments out over a period of four years until 2008. The obligations owed to Teijin will not accrue interest if paid according to the payment schedule. Teijin previously held a security interest in one of our production machines, which they have released. We may dispose of the machine provided that we pay to Teijin the net proceeds of any disposition. Our obligations to Teijin are guaranteed by our subsidiary, Southwall Europe GmbH.

Also, we agreed to use best efforts to elect a Teijin nominee to our Board of Directors. Mr. Noriyuki Nakamura, as the President and CEO of Teijin Holdings USA, a subsidiary of Teijin Limited, was appointed to our Board of Directors in July 2002. Mr. Nakamura resigned from our Board of Directors in March 2004 and Teijin has not sought to appoint a successor. During 2003, we paid Teijin approximately \$2.0 million for purchases of raw material substrates.

Transactions Involving Officers and Directors

In April 1997, we entered into a development and technology agreement with Energy Conversion Devices, Inc., or ECD. Robert C. Stempel, a Director of Southwall since May 2000, is the Chairman of ECD. Mr. Stempel is not standing for re-election to the Board at the special meeting. This agreement provides that we will pursue with ECD the commercialization of the process of sputter coating on flexible substrates using PECVD processes. The agreement further provides that we will pay ECD a royalty in an amount based upon the sales volume of product produced through the PECVD process. We agreed to pay to ECD 2.25% of net sales received by us in connection with PECVD technology for five years and 1.25% of net sales after that. Through December 31, 2003, the process had not been commercialized and we had not paid ECD royalties under the agreement. In February 1999, we entered into an equipment purchase contract with ECD pursuant to which ECD agreed to modify one of our production machines (PM 7) so that the machine would produce products by means of the PECVD process. We paid ECD approximately \$0.01 million in 2000, \$0.3 million in 2001 and nothing in 2002 and 2003 in connection with its conversion of PM 7 to the use of PECVD technology. As a requirement of the settlement reached with Portfolio Financial Servicing Company (See Note 11 to consolidated financial statements), we transferred possession of PM 7 to Portfolio Financial Servicing Company, the lien holder of PM 7. At December 31, 2002, we owed ECD approximately \$0.07 million in connection with the conversion of PM 7, which was represented by a note payable. A final payment of \$0.07 million was made in 2003.

During 1998, 1999, 2000, 2001 and 2002, we lent \$43,875, \$25,313, \$0, \$18,750 and \$14,700, respectively, to Thomas G. Hood, our President and Chief Executive Officer and a director, to permit him to exercise stock options that were about to expire at a time when he was not able to sell the shares issuable upon exercise to pay the exercise price. The indebtedness is represented by full recourse notes payable to us, which were due on June 30, 2003, each bearing interest at the rate of 7.0% per annum. The largest amount of indebtedness outstanding under these notes at any time during 2003 was \$130,731. We forgave the amounts due under these notes on June 30, 2003.

We believe that all transactions described above were made on terms no less favorable to us than would have been obtained from unaffiliated third parties. Future transactions, if any, with our executive officers, directors and affiliates will be on terms no less

favorable to us than could be obtained from unrelated third parties and will be approved by a majority of the Board of Directors and by a majority of our disinterested directors.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table shows the fees paid or accrued by us for the audit and other services provided by PricewaterhouseCoopers LLP for 2003 and 2002.

	<u>2003</u>	<u>2002</u>
Audit fees(1).....	\$ 451,072	\$ 797,512
Audit-related fees(2).....	37,519	160,913
Tax fees(3).....	125,283	20,804
All other fees(4).....	<u>-</u>	<u>-</u>
Total.....	<u>\$ 613,874</u>	<u>\$ 979,229</u>

- (1) Audit fees represent fees for professional services provided in connection with the audit of our financial statements, 401(k) plan and statutory audits for the fiscal years ended December 31, 2003 and December 31, 2002, and the reviews of quarterly reports on Form 10-Q filed during 2003 and 2002.
- (2) Audit-related fees primarily represent fees for professional services provided in connection with our 2002 follow-on public offering and fees for professional services provided in connection with discussions regarding corporate governance requirements under the Sarbanes-Oxley legislation.
- (3) For 2003 and 2002, tax fees consisted of fees for tax compliance, tax advice and tax planning.
- (4) None.

Audit Committee’s Pre-approval Policy and Procedures

Our Audit Committee pre-approves all services, including both audit and non-audit services, provided by our independent accountants for the purpose of maintaining the independence of our independent public accountants. For audit services, each year the independent auditor provides us with an engagement letter outlining the scope of the audit services proposed to be performed during the year, which must be formally accepted by the Audit Committee before the audit commences. The independent accountants also submit an audit services fee proposal, which also must be approved by the Audit Committee before the audit commences.

Each year, management also submits to the Audit Committee a list of non-audit services that it recommends the independent accountants be engaged to provide and an estimate of the fees to be paid for each. Management and the independent accountants must each confirm to the Audit Committee that the performance of the non-audit services on the list would not compromise the independence of the auditor and would be permissible under all applicable legal requirements. The Audit Committee must approve both the list of non-audit services and the budget for each such service before commencement of the work. Management and the independent accountant report to the Audit Committee at each of its regularly scheduled meetings as to the non-audit services actually provided by the independent accountant and the approximate fees incurred by us for those services.

During 2003, no services were provided to us by PricewaterhouseCoopers LLP or any other accounting firm other than in accordance with the pre-approval policies and procedures described above.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

The following documents are filed as part of this Form 10-K/A:

(a) (1) *Financial Statements*. The following Financial Statements of Southwall Technologies Inc. are filed as part of this Form 10-K/A:

	Form 10-K/A Page Number
Report of Independent Auditors	43
Consolidated Balance Sheets as of December 31, 2002 and 2003	44
Consolidated Statements of Operations for the years ended December 31, 2001, 2002 and 2003	45
Consolidated Statements of Stockholders' Equity for the years ended December 31, 2001, 2002 and 2003	46
Consolidated Statements of Cash Flows for the years ended December 31, 2001, 2002 and 2003	47
Notes to Consolidated Financial Statements	48

(2) *Financial Statement Schedule*.

Valuation and qualifying accounts and reserves:

<u>Description</u>	Balance at Beginning of Year	Additions	Deductions	Balance at End of Year
2003				
Inventory reserves.....	\$ 988	\$ 908	\$ 456 (2)	\$ 1,440
Allowance for Bad Debts.....	\$ 552	\$ 275	\$ 49 (2)	\$ 778
Reserves for warranty and sales returns.....	\$ 2,069	\$ 2,271 (1)	\$ 2,489 (2)	\$ 1,851
Tax valuation allowance.....	\$ 14,671	\$ 14,850	\$ --	\$ 29,521
2002				
Inventory reserves.....	\$ 1,001	\$ 255	\$ 268 (2)	\$ 988
Allowance for Bad Debts.....	\$ 388	\$ 353	\$ 189 (2)	\$ 552
Reserves for warranty and sales returns.....	\$ 2,642	\$ 2,229 (1)	\$ 2,802 (2)	\$ 2,069
Tax valuation allowance.....	\$ 10,969	\$ 3,702	\$ --	\$ 14,671
2001				
Inventory reserves.....	\$ 1,418	\$ 876	\$ 1,293 (2)	\$ 1,001
Allowance for Bad Debts.....	\$ 640	\$ 460	\$ 712 (2)	\$ 388
Reserves for warranty and sales returns.....	\$ 1,903	\$ 3,945 (1)	\$ 3,206 (2)	\$ 2,642
Tax valuation allowance.....	\$ 13,129	\$ --	\$ 2,159	\$ 10,970

Notes

- (1) Charged against revenue.
- (2) Reserves utilized during the year.

(3) *Exhibits*.

Reference is made to the Exhibit Index, which follows the signature pages of this Form 10-K/A.

(b) *Reports on Form 8-K*.

During the quarter ended December 31, 2003, the Registrant filed the following Reports on Form 8-K:

1. Form 8-K furnished on November 12, 2003, reporting under Item 5 the execution of a letter of intent with Needham & Company (“Needham”) with respect to a proposed financing of the Registrant by Needham
2. Form 8-K/A furnished on November 12, 2003, amending the Form 8-K filed on November 12, 2003.
3. Form 8-K furnished on December 9, 2003, reporting under Item 5 the extension of the letter of intent between the Registrant and Needham.
4. Form 8-K furnished on December 16, 2003, reporting under Item 5 the further extension of the letter of intent between the Registrant and Needham.
5. Form 8-K furnished on December 23, 2003, reporting under Item 5 the execution of an Investment Agreement with Needham and affiliates and Dolphin Direct Equity Partners, the consummation of transactions in connection therewith and the entering into by the Registrant of a new loan and security agreement.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized, as of the day of May 6, 2004.

SOUTHWALL TECHNOLOGIES INC.

By: /s/ THOMAS G. HOOD

Thomas G. Hood

President

EXHIBIT INDEX

Exhibit No.	Exhibit
3.1(1)	Restated Certificate of Incorporation of the Company.
3.2(1)	By-laws of the Company.
3.3(26)	Amended and Restated Certificate of Designation, Preferences and Rights of Series A 10% Cumulative Preferred Stock of the Company filed with the Secretary of State of Delaware on January 30, 2004.
10.35.1(11)	Lease Agreement for the facilities at 3941 East Bayshore Road, dated October 7, 1999, between the Company and Straube Associates, Inc.
10.36(1)	Lease Agreement for the facilities at 3961 East Bayshore Road, dated March 20, 1979, between the Company and Allan F. Brown and Robert V. Brown.
10.36.1(11)	Amendment, dated October 12, 1999, between the Company and Brown Investment Company to the Lease Agreement for the facilities at 3961 East Bayshore Road, dated March 20, 1979, between the Company and Allan F. Brown and Robert V. Brown.
10.52(2)	Marketing and Distribution Agreement dated as of May 20, 1988, among Mitsui, Marubeni Corporation and the Company, as amended.
10.52.1(19)	Amendment to the Marketing and Distribution Agreement dated as of May 20, 1988, among Mitsui, Marubeni Corporation and the Company, dated December 28, 1990.
10.59(3)	Lease Agreement for the facilities at 3969-3975 East Bayshore Road Palo Alto, California, dated January 1, 1989, between the Company and Bay Laurel Investment Company.
10.59.1(11)	Amendment, effective January 1, 2000, between the Company and Judd Properties, LLC to the Lease Agreement for the facilities at 3969-3975 East Bayshore Road Palo Alto, California, dated January 1, 1989, between the Company and Bay Laurel Investment Company.
10.59.2(27)	Second Amendment to Lease for the facilities at 3969-3975 East Bayshore Road Palo Alto, California, dated February 19, 2004, between the Company and Judd Properties, LLC.
10.60(3)	Lease Agreements for the facilities at 3977-3995 East Bayshore Road Palo Alto, California, dated January 1, 1989, between the Company and Bay Laurel Investment Company.
10.60.1(11)	Amendment, effective January 1, 2000, between the Company and Judd Properties, LLC to the Lease Agreements for the facilities at 3977-3995 East Bayshore Road Palo Alto, California, dated January 1, 1989, between the Company and Bay Laurel Investment Company.
10.60.2(27)	Surrender and Termination Agreement for the facilities at 3977-3995 East Bayshore Road Palo Alto, California, dated February 19, 2004, between the Company and Judd Properties, LLC.
10.71(4)	Lease Agreement for the facilities at 3780 Fabian Way, Palo Alto, California, dated June 11, 1990, between the Company and The Fabian Building.
10.72(4)	License Agreement between Mitsui and the Company, dated December 28, 1990.
10.72.1(19)	Amendment to the License Agreement dated as of December 28, 1990 between Mitsui and the Company, dated August 2000.
10.78(5)	Amendment to property lease dated February 2, 1994 to extend lease period on building at 3961 E. Bayshore Road, Palo Alto, California. Original lease filed as Exhibit No. 10.36 above.
10.80(6)	Lease Agreement between Frank Gant, as Lessor, and the Company, as Lessee, effective September 1, 1994.
10.84(7)	Lease Agreement between Chamberlain Development, L.L.C., as Lessor and the Company, as Lessee, effective August 22, 1996.
10.88(8)	Basic Agreement dated April 9, 1997, for the sale of 667,000 shares of the Company's common stock to Teijin Limited, a Japanese corporation, and for mutually beneficial cooperation and collaboration between Teijin and the Company.

Exhibit No.	Exhibit
10.90(8)	Reimbursement and Security Agreement dated May 6, 1997, between Teijin Limited, a Japanese corporation, and the Company.
10.92(9)*	The Company's 1997 Stock Incentive Plan.
10.93(10)*	The Company's 1997 Employee Stock Purchase Plan, as amended.
10.94(12)*	The Company's October 22, 1999 Severance Policy in the Event of a Merger.
10.95(12)	Amendment to property lease dated August 22, 1996, to increase rent on building located at 8175 South Hardy Drive, Tempe, Arizona effective December 1, 2000. Original lease was filed as Exhibit 10.84 above.
10.95.1(27)	Letter Agreement dated January 29, 2004 between the Company and Greenwood & Son Real Estate Investments relating to the building located at 8175 South Hardy Drive, Tempe, Arizona. S
10.96(13)	Digeo, Inc. sublease agreement.
10.97(13)	Energy Conversion Devices note payable.
10.98(14)	Globamatrix Purchase Agreement.
10.99(15)	1998 Stock Plan for Employees and Consultants.
10.100(15)	Receivables Financing Agreement between Pacific Business Funding and the Company, dated June 30, 1999.
10.101(16)	Supply Agreement between Saint Gobain Sekurit France and the Company, dated December 19, 2001 (portions of this exhibit have been omitted based on a request for confidential treatment; the non-public information has been filed with the Commission).
10.103(15)	German bank loan dated May 12, 1999.
10.104(15)	German bank loan dated May 28, 1999.
10.105(22)	German bank loans dated May 28, 1999 and December 1, 1999.
10.106(15)	German bank loan due June 30, 2009.
10.107(15)	German bank loan dated June 29, 2000.
10.108(15)	German bank loan dated July 10, 2000.
10.109(15)	German bank loans dated December 18, 2000 and December 19, 2000.
10.111(19)	Master Lease Agreement between Matrix Funding Corporation and the Company, dated July 19, 1999.
10.112(15)	Development and Technology Agreement between Energy Conversion Devices, Inc. dated April 11, 1997.
10.115(20)	Teijin Waiver Letter dated March 28, 2002.
10.116(18)	Distribution Agreement between Globamatrix Holdings Pte. Ltd. and the Company, dated as of January 1, 2002 (portions of this exhibit have been omitted based on a request for confidential treatment; the non-public information has been filed with the Commission).
10.116.1(27)	Letter Agreement dated August 28, 2003 between Globamatrix Holdings Pte. Ltd. and the Company amending the Distribution Agreement between the parties dated January 1, 2002.
10.116.2(27)	Letter Agreement dated December 17, 2003 between Globamatrix Holdings Pte. Ltd. and the Company amending the Distribution Agreement between the parties dated January 1, 2002.
10.117(17)	Teijin Waiver Letter dated May 9, 2002.
10.118(17)	Sanwa Bank Waiver Letter dated May 15, 2002.
10.119(19)	Standard Industrial Lease dated October 1999 for the facilities at 1029 Corporation Way, Palo Alto, California between the Company and C&J Development.
10.120(19)	Guarantee Agreement Regarding 10 million US\$ Credit Facility between Teijin Limited and the Company, dated May 6, 1997.

Exhibit No.	Exhibit
10.120.1(21)	Memorandum Amendment to the Guarantee Agreement between Teijin Limited and the Company, dated August 1999.
10.121. (23)	Pilkington Supply and Purchase Agreement dated September 1, 2002.
10.122. (23)	Xinyi Group (Glass) Co. LTD. Purchase Agreement dated September 5, 2002.
10.123 (24)	Domestic Factoring Agreement dated May 16, 2003, between Pacific Business Funding and the Company.
10.123.1 (24)	Amendment to the Domestic Factoring Agreement dated June 16, 2003, between Pacific Business Funding and the Company.
10.124 (24)	Intellectual Property Security Agreement dated May 16, 2003, between Pacific Business Funding and the Company.
10.125 (24)	Export-Import Working Capital Guarantee Program Borrower Agreement, between Pacific Business Funding and the Company.
10.126 (24)	Export-Import Factoring Agreement dated May 16, 2003, between Pacific Business Funding and the Company.
10.126.1 (24)	Amendment to the Export- Import Factoring Agreement dated June 16, 2003, between Pacific Business Funding and the Company.
10.127 (24)	Manufacturing and Supply Agreement between the Company and Mitsui Chemicals, Inc. dated July 19, 2003 (portions of this exhibit have been omitted based on a request for confidential treatment; the non-public information has been filed with the Commission).
10.128(27)	Guaranteed Loan Agreement dated January 19, 2004, between Teijin Limited and the Company.
10.129(27)	Guaranty Agreement dated January 19, 2004, between Teijin Limited and Southwall Europe GmbH.
10.130(27)	Supply Agreement between Saint Gobain Sekurit France and the Company, effective January 1, 2004 (portions of this exhibit have been omitted based on a request for confidential treatment; the non-public information has been filed with the Commission).
10.131 (26)	Amended and Restated Investment Agreement, dated February 20, 2004, by and among the Company and Needham & Company, Inc., Needham Capital Partners II, L.P., Needham Capital Partners II (Bermuda), L.P., Needham Capital Partners III, L.P., Needham Capital Partners IIIA, L.P., Needham Capital Partners III (Bermuda), L.P., and Dolphin Direct Equity Partners, LP (collectively, the “Investors”).
10.132 (26)	Amended and Restated Registration Rights Agreement, dated February 20, 2004, by and among the Company, Pacific Business Funding, Judd Properties, LLC, and the Investors.
10.133 (26)	Form of Secured Convertible Promissory Note issued by the Company to the Investors.
10.134 (26)	Pledge Agreement, dated February 20, 2004, between the Company and Needham & Company, Inc.
10.135 (25)	Form of Warrant to purchase shares of the Company's common stock.
10.136 (25)	Loan and Security Agreement, dated December 18, 2003, between the Company and Pacific Business Funding.
10.137 (25)	Forbearance Agreement, dated December 18, 2003, between the Company and Pacific Business Funding.
10.137.1(27)	First Amendment to Forbearance Agreement, dated December 29, 2003, between the Company and Pacific Business Funding.
10.137.2 (26)	Second Amendment to Forbearance Agreement, dated February 20, 2004, between the Company and Pacific Business Funding.
10.138(27)	Mutual Release and Settlement Agreement dated February 20, 2004, by and among the Company and Bank of America, N.A., Portfolio Financial Servicing Company and Lehman Brothers. Agreement relates to the Master Lease Agreement between Matrix Funding Corporation and the Company filed as Exhibit 10.111.
14(27)	Code of Ethics.
21(15)	List of Subsidiaries of the Company.
23.1	Consent of Independent Accountants.
31.1	Certification pursuant to Exchange Act Rules 13a-14 and 15d-14 of the Chief Executive Officer
31.2	Certification pursuant to Exchange Act Rules 13a-14 and 15d-14 of the Chief Financial Officer

- 32.1 Certification pursuant to 18 U.S.C. Section 1350 of the Chief Executive Officer
32.2 Certification pursuant to 18 U.S.C. Section 1350 of the Chief Financial Officer

* Relates to management contract or compensatory plan or arrangement.

- (1) Filed as an exhibit to the Registration Statement on Form S-1 filed with the Commission on April 27, 1987 (Registration No. 33-13779) (the "Registration Statement") and incorporated herein by reference.
- (2) Filed as an exhibit to the Form 10-Q Quarterly Report for Quarter Ended June 30, 1988, filed with the Commission on August 15, 1988 and incorporated herein by reference. Our 1934 Act registration number is 000-15930.
- (3) Filed as an exhibit to the Form 10-Q Quarterly Report for Quarter Ended July 2, 1989, filed with the Commission on August 16, 1989 and incorporated herein by reference.
- (4) Filed as an exhibit to the Form 10-K Annual Report 1990, filed with the Commission on March 25, 1991 and incorporated herein by reference.
- (5) Filed as an exhibit to the Form 10-K Annual Report 1992, filed with the Commission on March 15, 1993 and incorporated herein by reference.
- (6) Filed as an exhibit to the Form 10-Q Quarterly Report for Quarter Ended July 3, 1994, filed with the Commission on August 15, 1994 and incorporated herein by reference.
- (7) Filed as an exhibit to the Form 10-K Annual Report 1996, filed with the Commission on March 27, 1997 and incorporated herein by reference.
- (8) Filed as an exhibit to the Form 10-Q Quarterly Report for Quarter Ended June 29, 1997, filed with the Commission on August 14, 1997 and incorporated herein by reference.
- (9) Filed as Proposal 3 included in the 1997 Proxy statement filed with the Commission on April 14, 1997 and incorporated herein by reference.
- (10) Filed as Proposal 3 included in the 2002 Proxy statement filed with the Commission on April 22, 2002 and incorporated herein by reference.
- (11) Filed as an exhibit to the Form 10-K Annual Report 1999, filed with the Commission on April 6, 2000 and incorporated herein by reference.
- (12) Filed as an exhibit to the Form 10-K Annual Report 2000, filed with the Commission on April 9, 2001 and incorporated herein by reference.
- (13) Filed as an exhibit to the Form 10-Q Quarterly Report for Quarter Ended September 30, 2001, filed with the Commission on November 12, 2001 and incorporated herein by reference.
- (14) Filed as an exhibit to the Form 10-Q Quarterly Report for the Quarter Ended April 1, 2001, filed with the Commission on May 16, 2001 and incorporated herein by reference.
- (15) Filed as an exhibit to the Form 10-K Annual Report 2001, filed with the Commission on April 1, 2002 and incorporated herein by reference.
- (16) Filed as an exhibit to the Form 10-K/A Annual Report 2001, filed with the Commission on June 14, 2002 and incorporated herein by reference.
- (17) Filed as an exhibit to the Form 10-Q Quarterly Report for the Quarter Ended March 31, 2002, filed with the Commission on May 17, 2002 and incorporated herein by reference.
- (18) Filed as an exhibit to the Form 10-Q/A Quarterly Report for the Quarter Ended March 31, 2002, filed with the Commission on June 19, 2002 and incorporated herein by reference.
- (19) Filed as an exhibit to Amendment No. 3 to the Registration Statement on Form S-1 filed with the Commission on June 25, 2002 (Registration No. 333-85576) and incorporated herein by reference.
- (20) Filed as an exhibit to the Registration Statement on Form S-1 filed with the Commission on April 5, 2002 (Registration No. 333-85576) and incorporated herein by reference.
- (21) Filed as an exhibit to Amendment No. 1 to the Registration Statement on Form S-1 filed with the Commission on May 31, 2002 (Registration No. 333-85576) and incorporated herein by reference.
- (22) Filed as an exhibit to the Form 10-K/A Annual Report 2001, filed with the Commission on June 27, 2002 and incorporated herein by reference.
- (23) Filed as an exhibit to the Form 10-K Annual Report 2002, filed with the Commission on March 31, 2003 and incorporated herein by reference.
- (24) Filed as an exhibit to the Form 10-Q Quarterly Report for the Quarter Ended June 29, 2003, filed with the Commission on August 15, 2003 and incorporated herein by reference.
- (25) Filed as an exhibit to the Form 8-K Current Report, filed with the Commission on December 23, 2003 and incorporated herein by reference.
- (26) Filed as an exhibit to the Form 8-K/A Current Report, filed with the Commission on March 3, 2004 and incorporated herein by reference.
- (27) Filed as an exhibit to Form 10-K Annual Report 2003, filed with the Commission on April 14, 2004 and incorporated herein by reference.