SOUTHWALL TECHNOLOGIES INC /DE/
Form 10-K
March 29, 2006

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2005

OR

o 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	**94-2551470**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification Number)

3975 East Bayshore Road
Palo Alto, California 94303
(Address of Principal Executive Offices including Zip Code)

(650) 962-9111

(Registrant's Telephone Number, Including Area Code)

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)

_____

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Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ¨ No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15 (d) of the Act. Yes ¨ No x

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 x 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 or any amendment to this Form 10-K. Yes ¨ No x

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12B-2 of the Exchange Act). Yes ¨ No x

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of “accelerated filer and large accelerated filer” in Rule 12b-2 of the Exchange Act. (Check One).

Large accelerated filer ¨
Accelerated filer ¨
Non-accelerated filer x

The approximate aggregate market value of the Common Stock held by non-affiliates of the registrant on July 3, 2005 (based upon the closing sales price of the Common Stock on the Over-the-Counter Bulletin Market on such date) was $16 million. For purposes of this disclosure, Common Stock held by stockholders whose ownership exceeds five percent of the Common Stock outstanding as of July 3, 2005, 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.

The number of shares of the registrant's Common Stock outstanding on March 1, 2006 was 26,792,681.

Documents Incorporated by Reference

Document Description	10-K Part
Portions of the Registrant’s Proxy Statement for the Annual Meeting of Stockholders to be held May 25, 2006	III

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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. 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 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 Over-the-Counter Bulletin Board Market;
- 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 our ability to implement and maintain effective controls and procedures;
- 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.

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PART I

ITEM 1. BUSINESS

Overview

We are a global developer, manufacturer and marketer of thin film coatings for the automotive glass, electronic display, architectural glass and window film 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 via the application of our architectural and after-market window film products. Our products consist of transparent solar-control films for automotive glass; anti-reflective films for computer screens and 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.

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. 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.

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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, architectural glass and window film 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.

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 inside the automobile.

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Electronic display products

The thin film coated products we sell in this market primarily block electromagnetic emissions and infrared energy, and enhance the light output of certain displays. Our thin film coated substrates are used in liquid crystal and plasma displays, and in applications such as touch screens. In 2002, we started shipping production quantities and sizes of an 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.

Architectural glass 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; thus, the primary source of heat build-up and loss in buildings is through the glass windows.

Window Film

The thin film coated substrates we sell in this market are similar to the films sold into the automotive and architectural glass markets. Differences include certain product characteristics that allow the architectural window film products to be sold in the aftermarket rather than through the OEMs. In addition, our automotive window film products are used for retrofit application to the inside surface of a vehicle window and are sold through resellers who install the film.

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.

We rely extensively upon trade secrets and know-how to develop and maintain our competitive position. We have 29 patents and 10 patent applications pending in the United States and 63 patents and more than 31 patent applications pending outside the United States that cover materials, processes, products and production equipment. Of our existing patents, four U.S. patents and one international patent 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.

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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
Automotive glass	Windscreens, side windows, and back windows	Infrared reflective (XIR 70 and XIR 75)	Transmits 70% or 75% visible light Reflects 85% of infrared heat energy	Saint Gobain Sekurit Pilkington PLC AGC Automotive Americas Guardian Glass
Electronic display	Liquid crystal display (LCD) screens	Anti-reflective clear (ARC)	Clear anti-reflective product	Berliner Glass Mitsui Chemicals
	LCD reflector for lighting sources	Silver reflecting	95% Reflecting Light-weight mirror	
	Plasma display panels (PDP)	Infrared reflective (TCP)	Clear and Conductive Clear infrared blocking	Mitsui Chemicals
Architectural glass	New and retrofit residential and commercial windows and doors	Suspended Heat Mirror	Cool in summer Warm in winter UV blocking Noise reducing	Kensington Windows Zamil Glass Traco
	Commercial buildings	Laminated (XIR)	Infrared reflecting UV blocking Cool in summer Noise reducing	Gulf Glass Industries Cristales Curvados
Window film	After-market installation	Solis/V-KOOL	Transmits up to 75% visible light	Globamatrix

	Huper Optik	Reflects up to 85% of infrared heat energy Infrared reflecting UV blocking Cool in summer Noise reducing	Huper Optik

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 installed in 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 windshield glass producers. Our sputter coated flexible substrates can be applied to windshields with different curvatures and incorporated into most in-line windshield production processes used by glass companies today.

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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.

Our net revenues from sales of automotive glass products were $19.6 million, $20.6 million and $20.3 million in 2005, 2004 and 2003, respectively.

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.

Anti-reflective films. Our anti-reflective films minimize reflection of visible light while allowing high picture quality. 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.

Our net revenues from sales of electronic display products were $14.0 million, $20.6 million and $19.0 million in 2005, 2004 and 2003, respectively.

Architectural glass 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. Our products allow architectural glass manufacturers 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.

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 more than 50 Heat Mirror licenses in approximately 20 countries. We currently offer 11 different Heat Mirror films for architectural applications.

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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 more than 20 licenses for this architectural film product in approximately 15 countries.

Our net revenues from sales of architectural products were $5.9 million, $7.0 million and $6.3 million in 2005, 2004 and 2003, respectively.

Window Film Products

Our Solis/V-KOOL and Huper Optik solar-control films for automotive glass and architectural glass aftermarket installation use our XIR and other patented coating technologies. These products are applied to existing windows and have 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.

Our net revenues from sales of window film products were $15.1 million, $9.4 million and $7.7 million in 2005, 2004 and 2003, respectively.

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 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 6 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 74%, 79% and 89% of our net revenues during 2005, 2004 and 2003, respectively. The principal foreign markets for our products in 2005 were Japan ($12 million) and France ($11 million).

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Quality claims

We accept sales returns for quality claims on our products, which we believe are competitive for the markets in which those products are sold. The nature and extent of these quality claims depend on the product, the market, and in some cases the customer being served. We carry liability insurance. However, our insurance does not cover quality 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, who sell glass to automobile manufacturers including DaimlerChrysler, Renault, Audi, BMW, Volvo, Volkswagen and the PSA Group (which includes Peugot and Citroen). Our supply agreement with Saint Gobain Sekurit expired on December 31, 2005. We entered into a new agreement with Saint Gobain Sekurit in March of 2006. The new agreement will expire on February 29, 2008. Our failure to produce the required amounts of products under the new agreement could result in price penalties on future sales under the agreements.

Our customers in the electronic display market include Mitsui Chemicals and a number of other small accounts. Sales to Mitsui represented 23% of our total sales in 2005.

In 2005, our customers 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. 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. Globamatrix was obligated to purchase $10.3 million of products in 2005. During 2005, Globamatrix purchased approximately $14.9 million of product. Globamatrix is obligated to purchase at least $11.3 million from us in 2006.

A small number of customers have accounted for a substantial portion of our revenues. Our ten largest customers accounted for approximately 81%, 79% and 84% of our net sales in, 2005, 2004 and 2003, respectively. During 2005, Mitsui Chemicals, Saint Gobain Sekurit, V-Kool and Pilkington PLC accounted for 22.7%, 19.8%, 19.5% and 7.1%, respectively, of our net revenues. During 2004, Mitsui Chemicals, Saint Gobain Sekurit, V-Kool and Pilkington PLC accounted for 28.4%, 17.8%, 11.4% and 10.9%, respectively, of our net revenues. 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 revenues. 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.

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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 $5.1 million, $3.2 million and $6.7 million, or approximately 9.3%, 5.6% and 12.6% of total net revenues, in 2005, 2004 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. In 2004, the Class B film was sold in substantial quantities for the first time for use in PDP televisions sets. In 2005, we began development and sampling of a new class of films with improved performance that we believe will be beneficial across our product lines. We also initiated significant research and development into thin film technology that we anticipate will enable Southwall to produce products for new applications and markets. We cannot guarantee that we will be successful in developing or marketing these applications or that our films will continue to meet the demanding requirements of the changing technology.

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.

In 2005, we hired a new Chief Technology Officer and expanded our engineering organization by hiring an additional eight engineers. We are committed to developing new technologies and expanding our product offerings.

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Manufacturing

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

Machine Number	Location	Primary Markets For Current Production	Year Commercial Production Initiated	Estimated Annual Capacity (Millions of Sq. Ft.) [1]
PM 1	Palo Alto	Architectural	1980	none
PM 2	Palo Alto	Electronic display (currently not in use)	1982	6.0
PM 4A	Palo Alto	Automotive, architectural, electronic display and window film	1991	12.0
PM 4B	Palo Alto	Automotive, architectural, electronic display and window film	1991	12.0
PM 8	Dresden	Automotive, architectural, electronic display and window film	2000	16.0
PM 9	Dresden	Automotive, architectural, electronic displayand window film	2001	16.0
PM 10	Dresden	Automotive, architectural, electronic display and window film	2003	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.

On January 19, 2006, we commenced restructuring actions to improve our cost structure for 2006 and beyond. These actions include the closure of our Palo Alto, California manufacturing facility in the first half of 2006. We intend to scrap or sell our production machines (PM 2, PM 4A and PM 4B) used for manufacturing in Palo Alto. We will transfer our U.S. manufacturing operations to our site located near Dresden, Germany in the first half of 2006.

Our Dresden, Germany facility is ISO 9001/2000 certified.

Dresden, Germany facility

We own a production plant in Grossroehrsdorf, Germany, near the city of Dresden. The plant has three production machines and manufactures approximately 60% of our products. Southwall's Dresden plant is a supplier of automotive and architectural energy management films used by glass companies to enhance the thermal performance of their products; it is also a supplier of electronic display and window film.

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 both 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.

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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, the substrate we use in the manufacture of the Heat Mirror product is currently available from one main qualified source, Teijin Limited. The loss of our current source could adversely affect our ability to meet our scheduled product deliveries to customers. 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 such sources.

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 February 28, 2006 and February 28, 2005, we had a backlog of orders able to be shipped over the next 12 months of approximately $8.2 million and $7.6 million, respectively. Some of these orders are not firm orders and 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. We face technological competition from companies, such as PPG Industries, Pilkington PLC, Saint Gobain, Asahi, Guardian, and Glaverbel that have direct-to-glass sputtering capability. We may also be subject to future competition from companies that are able to infuse glass with solar control properties. We estimate that in 2005 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 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 2005 our coated substrates were applied to less than 4% of the products in the worldwide, flat screen plasma display market.

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Architectural glass market. Products that provide solar control and energy conservation have been available to this market for almost 25 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 2005 our coated substrates were used in less than 1% of the glass used worldwide in residential and commercial buildings.

Window film market. In the applied film segment of the 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.

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 state-of-the-art coating facility in a low-cost labor environment, which receives 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 December 31, 2005, we had 179 full-time and 5 part-time employees, of whom 25 were engaged in engineering, 110 in manufacturing, 19 in sales and marketing, and 30 in 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.

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ITEM 1A. RISK FACTORS

Financial Risks

Our working capital position, financial commitments and historical performance may raise doubt about our ability to have positive earnings in the future.

We incurred net losses in 2004 and 2003 and negative cash flows from operations in 2003. These factors together with our working capital position and our significant debt service and other contractual obligations at December 31, 2005, may raise doubt about our ability to restore profitable operations, generate cash flow from operating activities and obtain additional financing. These and other factors related to our business during recent years, 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 and ability to comply with the terms of government grants.

A few stockholders own a majority of our shares and will be able to exert control over us and our significant corporate decisions.

As a result of the consummation of the financing transactions in December 2003 and February 2004 with Needham & Company, Inc and its affiliates and Dolphin Direct Equity Partners, L.P., these shareholders at December 31, 2005 owned securities convertible into 57% of our outstanding common stock. As our largest stockholder and the guarantor of our line of credit, Needham could prevent us from seeking additional borrowings or alternative sources of financing that we require for future operations, could delay or prevent a change of control of our company, or otherwise control the company in ways that might have a material adverse effect on our company or our other shareholders.

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

As of December 31, 2005, we had total outstanding obligations under our credit and other loan agreements of $13.1 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. 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.

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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. 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.

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

In 2003, 2004 and 2005, approximately 34%, 31% and 32% of our revenues, respectively, 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 invoices we may have outstanding with it at any time.

Operational Risks

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

Our ten largest customers accounted for approximately 82%, 79%, and 84% of net revenues in 2005, 2004 and 2003, respectively. 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 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:

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- 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 processes 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 may not 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.

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If one of our customers is able to enforce a European automotive film patent, we may be restricted from using the methods present in such patent to produce some of our products.

On March 3, 2005, the European Patent Office allowed a European patent owned by Pilkington Automotive GmBH entitled "Method for producing a laminated glass pane free of optical obstruction caused by warping, use of a particular carrier film for the production of the laminated glass pane and carrier films particularly suitable for the method of use." This European patent covers certain laminated films and methods of using them, which may prevent us from producing certain films designed for the automotive markets. Our inability to use this technology could adversely affect our ability to provide a full range of products to the automotive film market. We participated in opposing the European patent and have appealed the European Patent Office decision.

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 two 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.

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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 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.

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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, during 2005, we experienced a decrease of 32% from 2004 in our net revenues in the electronic display market primarily due to lower demand for our sputtered thin film filter products for Plasma Display Panel products due to increased competition, and we expect this trend to continue. Mitsubishi Electric was the only CRT manufacturer that buys our anti-reflective, or AR, film and it 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. In 2005, we stopped converting (cutting the film to the customer’s specifications) one of our window film product models and agreed with our customers that they would complete this process. This resulted in higher revenues on our TX products as our customers bought more products to fill their distribution pipeline.

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. One of our U.S. patents relating to our architectural products, heat mirror, will expire in 2006. 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.

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:

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- delays in collecting accounts receivable;
- higher manufacturing costs;
- additional warranty and service expenses; and
- reduced or cancelled orders.

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 and Neil Bergstrom, our Chief Technology Officer and Senior Vice President. 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.

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

Revenues from international sales amounted to approximately 74%, 79% and 89% of our net revenues during 2005, 2004 and 2003, respectively. The distance between our two manufacturing sites 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.

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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 1B. UNRESOLVED STAFF COMMENTS

None.

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ITEM 2. PROPERTIES

Our administrative, sales and marketing, research and development, engineering and manufacturing facilities are located in three buildings totaling approximately 58,000 square feet in Palo Alto, California. One of the buildings is occupied under a lease that expired on January 31, 2006, and the other two are occupied under leases that expire on July 31, 2006 and October 31, 2007. On January 19, 2006, we announced our plans to vacate our current Palo Alto facilities. We intend to relocate to another Silicon Valley facility for these functions. We are working out a surrender plan with the landlord for these premises. On February 19, 2004, we entered into the second amendment to the lease that was due to expire on January 31, 2006. This amendment reflected a payment schedule for a rent deferral for this facility. In January of 2006, we paid off approximately $1.2 million of this deferred rent. On July 14, 2005, we moved our warehouse from 210 Littlefield, So. San Francisco, CA into 2629B Terminal Blvd., Mountain View, CA. The term of this lease is a period of one year, commencing on August 1, 2005 and terminating on July 31, 2006, with monthly rent payments of $5,655. In addition, we own a 60,000 square foot building in Dresden, Germany, which we took possession of in May 2000.

ITEM 3. LEGAL PROCEEDINGS

The Company was named as a defendant, along with Bostik, Inc., in an action captioned WASCO Products, Inc. v. Southwall Technologies, Inc. and Bostik, Inc., Civ. Action No. C 02 2926 SBA, which was filed in Federal District Court for the Northern District of California on June 18, 2002. We were served with the Complaint in this matter on July 1, 2002. The plaintiff filed the matter as a class action on behalf of all entities and individuals in the United States who manufactured and/or sold and warranted the service life of insulated glass units manufactured between 1989 and 1999, which contained Southwall Heat Mirror film and were sealed with a specific type of sealant manufactured by Bostik, Inc. The plaintiff alleged that the sealant provided by Bostik, Inc. was defective, resulting in elevated warranty replacement claims and costs. The plaintiff asserted claims against us for breach of an implied warranty of fitness, misrepresentation, fraudulent concealment, negligence, negligent interference with prospective economic advantage, breach of contract, unfair business practices and false or misleading business practices. The plaintiff sought recovery on behalf of the class of $100 million for damages allegedly resulting from elevated warranty replacement claims, restitution, injunctive relief, and non-specific compensation for lost profits. By Order entered December 22, 2003, the Court dismissed all claims against us. The plaintiff has filed a notice of appeal to the Ninth Circuit Court of Appeals. On January 13, 2006, the Court of Appeals affirmed the lower court decision. On January 26, 2006, the plaintiff filed a petition for rehearing with the Ninth Circuit Court of Appeals. In March of 2006, the Ninth Circuit Court of Appeals denied the plaintiff's petition. A percentage of the Company's defense costs are being paid by its insurance carriers under reservation of rights.

The insurance carriers in some of the litigation related to allege 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.

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On June 13, 2002, Plaintiff Charles Ikekwere ("Plaintiff") filed a Complaint against Southwall in the Superior Court of California in and for the County of Santa Clara, Case No. CV808644. Mr. Ikekwere is a former employee of our company. Plaintiff's Complaint alleged claims for race discrimination, national origin discrimination, retaliation, medical condition discrimination, breach of contract, breach of fiduciary duty, fraud, negligence, intentional infliction of emotional distress, and punitive damages. We challenged the sufficiency of certain of Plaintiff's allegations, which caused him to file a First Amended Complaint alleging essentially the same claims. We also challenged certain of Plaintiff's allegations in his First Amended Complaint, which caused him to file a Second Amended Complaint. Following our legal challenges to Plaintiff's Second Amended Complaint, the following claims remain at issue in the litigation: (1) race discrimination; (2) national origin discrimination; (3) retaliation; (4) medical condition discrimination; (5) breach of contract; (6) violation of California Constitution Article I; and (7) fraud and deceit. In light of certain deposition testimony given by Plaintiff, we removed this matter to Federal Court on January 6, 2004. The basis for our removal was that certain of Plaintiff's allegations were preempted by the Employee Retirement Income and Security Act (ERISA). On February 4, 2004, Plaintiff filed a Motion to Remand the case to State Court, which the Court denied. Plaintiff subsequently amended his Second Amended Complaint to add a claim under ERISA. The parties have almost completed all discovery, with just one deposition remaining. The parties have finished expert discovery. We have filed a summary judgment motion, which, if granted, will dispose of the entire action. If Plaintiff defeats our summary judgment motion, trial is scheduled for July 2006. Until discovery is completed and the Court rules on our summary judgment motion, it is not possible to predict how Plaintiff's claims will be resolved, whether we will be found liable, or the nature and extent of Plaintiff's alleged damages.

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

None.

Executive Officers of Registrant

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

Name	Age	Position
Thomas G. Hood	50	President, Chief Executive Officer and Director
Neil Bergstrom	56	Chief Technology Officer and Senior Vice President, Engineering
Dennis Capovilla	46	Senior Vice President, Sales and Marketing
Sylvia Kamenski	53	Vice President, Finance
Sicco W.T. Westra	55	Vice President, Business Development
Wolfgang Heinze	57	Vice President, General Manager Southwall Europe GmbH

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.

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Neil Bergstrom joined Southwall in June 2005 as Chief Technology Officer and Senior Vice President, Engineering. His responsibilities include technology development, new product development, and thin film engineering. From 2004 to 2005, Dr. Bergstrom was Vice President of Engineering at Qualcomm MEMS Technologies, an LCD displays manufacturer, and from 2002 to 2004, held the same position at Iridigm Display, the iMoD displays manufacturer, prior to its acquisition by Qualcomm. In this strategic role, he successfully developed and transferred new MEMS display technology into existing LCD display manufacturing lines. Dr. Bergstrom joined Iridigm Display as Vice President of Business Development and successfully established key offshore manufacturing partnerships. From 1997 to 2002, Dr. Bergstrom served as Chief Technology Officer at Inviso, an international provider of high technology video/audio/data transport, signal management and display solutions for television broadcast, telecommunications, cable television and video production, and headed the technology development team and established ongoing relationships with the company's key technology partners and suppliers. From 1992 to 1996, he was with Apple Computer where he managed the Advanced Display Department and initiated Apple's move into flat panel monitor products. Dr. Bergstrom began his career at Intel Corporation as a researcher and as Process Integration Manager for memory chip technologies in the Technology Development Division from 1982 until 1986. He holds a Ph.D. in Physics from U.C. Berkeley.

Dennis Capovilla joined Southwall in July 2003. Mr. Capovilla 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 Chief Executive Officer from 2000-2002, the President and Chief Operating Officer from 1999 to 2000, and the VP of Sales and Business Development from 1997-1999. From 1993-1997, Mr. Capovilla 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, Mr. Capovilla 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.

Sylvia Kamenski has been our Vice President of Finance since December 16, 2005. She joined Southwall in June of 2004 as Corporate Controller. Ms. Kamenski was appointed as Acting CFO in June 2005, and has played an expanded role in the management of the financial operations for the Company. Prior to joining Southwall from 2001 to 2003, Ms. Kamenski worked as Corporate Controller at Genus, Inc., a manufacturer of capital equipment and deposition processes for advanced semiconductor manufacturing, and from 1991 to 1997 in senior financial positions at Acuson Corporation, a manufacturer of high-performance systems that generate, display, archive and retrieve medical diagnostic ultrasound images. From 1984 until 1989, Ms. Kamenski worked for Raychem Corporation, a manufacturer of a variety of high-performance products for applications in electronics, telecommunications, transportation, infrastructure, and energy networks markets. Ms. Kamenski began her career in the audit and tax departments of Price Waterhouse, LLP (now PricewaterhouseCoopers), where she received her Certified Public Accountant certification. Ms. Kamenski holds a B.S. in Business Administration with a major in accounting from the University of San Francisco.

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Sicco W. T. Westra has been 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.

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PART II

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

Our common stock is traded on the Over-the-Counter Bulletin Board Market under the symbol "SWTX.OB". 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 Over-the-Counter Bulletin Board Market. As a result of our February 2004 financing transactions, in which we issued convertible promissory notes and warrants, we were no longer in compliance with certain NASDAQ listing requirements. We felt that a voluntary delisting from NASDAQ and move to the Over-the-Counter Bulletin Board Market would provide the best option to our stockholders 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 and Over-the-Counter Bulletin Board Market during the periods indicated.

	High	Low
2005		
1st Quarter	$ 1.82	$ 1.00
2nd Quarter	1.65	1.07
3rd Quarter	1.25	0.85
4th Quarter	0.89	0.52
2004		
1st Quarter	$ 2.09	$ 0.98
2nd Quarter	0.94	0.40
3rd Quarter	0.85	0.48
4th Quarter	1.72	0.48

On February 28, 2006, the last reported sale price for our common stock as reported on the Over-the-Counter Bulletin Board Market was $0.73 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.

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. The Series A 10% Preferred Stock is entitled to cumulative dividends of 10% per year, payable at the discretion of our Board of Directors. 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 without the consent of our Series A 10% Preferred stockholders. Per our credit agreement with Wells Fargo Bank, we are allowed to declare and pay up to $600,000 in preferred stock dividends on a per annum basis.

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ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data as of and for each of the five years ended December 31, 2005 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:

	Years Ended December 31,				
	2005	2004	2003	2002	2001
	(in thousands, except per share data)				
Net revenues	$ 54,574	$ 57,573	$ 53,326	$ 68,759	$ 82,976
Cost of revenues	37,241	36,787	45,914	49,614	60,148
Gross profit	17,513	20,786	7,412	19,145	22,828
Gross profit %	32.0%	36.1%	13.9%	27.8%	27.5%
Operating expenses:					
Research and development	5,104	3,199	6,714	7,685	5,456
Selling, general and administrative	8,332	10,217	12,348	12,450	11,036
Restructuring costs (recoveries)	--	--	(65)	2,624	--
Impairment charge (recoveries) for long-lived assets	(170)	(1,513)	27,990	--	--
Total operating expenses	13,266	11,903	46,987	22,759	16,492
Income (loss) from operations	4,247	8,883	(39,575)	(3,614)	6,336
Interest expense, net	(973)	(2,206)	(1,590)	(1,734)	(2,872)
Costs of warrants issued	--	(6,782)	(865)	--	--
Other income, net	75	534	419	1,070	1,385
Income (loss) before provision for (benefit from) income taxes	3,349	429	(41,611)	(4,278)	4,849
Provision for (benefit from) income taxes..	29	614	681	(87)	214
Net income (loss)	3,320	(185)	(42,292)	(4,191)	4,635
Deemed dividend on preferred stock	490	--	--	--	--
Net income (loss) attributable to common stockholders	$ 2,830	$ (185)	$ (42,292)	$ (4,191)	$ 4,635
Net income (loss) per share:					
Basic	$ 0.11	$ (0.01)	$ (3.37)	$ (0.40)	$ 0.58
Diluted	$ 0.10	$ (0.01)	$ (3.37)	$ (0.40)	$ 0.57
Weighted average shares used in computing net income (loss) per share:					

Basic	26,743	14,589	12,537	10,418	8,032
Diluted	32,895	14,589	12,537	10,418	8,186

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Consolidated Balance Sheet Data:

	As of December 31,				
	2005	2004	2003	2002	2001
	(in thousands)				
Cash, cash equivalents and restricted cash	$ 7,002	$ 5,233	$ 1,891	$ 2,629	$ 3,362
Working capital (deficit)	8,691	6,528	(4,210)	588	(6,471)
Property, plant and equipment	16,857	21,110	21,787	50,251	47,841
Total assets	39,641	44,947	41,721	76,582	73,158
Term debt and capital leases including current portion	10,107	13,107	15,700	16,752	22,828
Total liabilities	23,702	30,374	40,000	36,108	46,706
Preferred stock	4,810	4,810	--	--	--
Total stockholders' equity	11,129	9,763	1,721	40,474	26,452

Selected Cash Flow Data:

	Years Ended December 31,				
	2005	2004	2003	2002	2001
	(in thousands)				
Net cash provided by (used in) operating activities	$ 4,006	$ 3,830	$ (2,990)	$ (2,824)	$ 13,792
Net cash provided by (used in) investing activities	(342)	1,261	(2,775)	(6,014)	(5,698)
Net cash provided by (used in) financing activities	(1,566)	(2,249)	5,548	7,679	(4,628)

Quarterly Financial Data:

The following table sets forth consolidated statements of operations data for the eight fiscal quarters ended December 31, 2005. This information has been derived from our unaudited condensed 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 only of normal recurring adjustments 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.

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Selected Quarterly Financial Information (Unaudited):

	Quarters Ended			
	Apr. 3, 2005	Jul. 3, 2005	Oct. 2, 2005	Dec. 31, 2005
	(in thousands, except per share amounts)			