

KULICKE & SOFFA INDUSTRIES INC

Form S-3

October 28, 2008

Table of Contents

As filed with the Securities and Exchange Commission on October 27, 2008

Registration No.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM S-3

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

KULICKE AND SOFFA INDUSTRIES, INC.

(Exact name of registrant as specified in its charter)

Pennsylvania
(State or Other Jurisdiction of

Incorporation or Organization)

23-1498399
(I.R.S. Employer

Identification Number)

Edgar Filing: KULICKE & SOFFA INDUSTRIES INC - Form S-3

1005 Virginia Drive

Fort Washington, PA 19034

Telephone: (215) 784-6000

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrants Principal

Executive Offices)

David J. Anderson

Vice President and General Counsel

Kulicke and Soffa Industries, Inc.

1005 Virginia Drive

Fort Washington, PA 19034

Telephone: (215) 784-6000

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

with a copy to:

Walter J. Mostek, Jr.

Drinker Biddle & Reath LLP

1000 Westlakes Drive

Berwyn, PA 19312-2409

(610) 993-2200

Approximate date of commencement of proposed sale to the public: from time to time following the effective date of this Registration Statement.

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

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box: x

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

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

Edgar Filing: KULICKE & SOFFA INDUSTRIES INC - Form S-3

If this form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. "

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. "

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large Accelerated filer " Accelerated filer x
 Non-accelerated filer " Smaller reporting company "

(Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Unit (2)	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common shares, no par value	7,117,438	2.61	\$18,576,513	\$730.06

- (1) In addition to the shares of common stock set forth in the table above, pursuant to Rule 416 under the Securities Act of 1933, we are registering an indeterminate number of shares of common stock issuable in connection with stock splits, stock dividends, recapitalizations or similar events. All common shares may be offered and sold by the selling shareholder from time to time.
- (2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act of 1933, based upon the average of the high and low prices of the Registrant's common shares reported on the NASDAQ Global Market on October 24, 2008.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. The selling shareholder may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Table of Contents

The information in this prospectus is not complete and may be changed. The selling securityholder may not sell these securities until the registration statement filed with the Securities and Exchange Commission is declared effective. This prospectus is not an offer to sell these securities and neither we nor the selling securityholder are soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion, dated October 27, 2008

PRELIMINARY PROSPECTUS

7,117,438 Common Shares

We are registering the resale from time to time of up to 7,117,438 common shares issued to the selling shareholder pursuant to an Asset Purchase Agreement by and between Orthodyne Electronics Corporation and the Company dated July 31, 2008, which was completed on October 3, 2008. We will not receive any of the proceeds from the sale of our common shares by the selling shareholder pursuant to this prospectus.

Our common shares are listed on the NASDAQ Global Market under the symbol KLIC. On October 24, 2008, the closing price of our common shares on the NASDAQ Global Market was \$2.56 per share.

INVESTING IN OUR COMMON SHARES INVOLVES RISKS. YOU SHOULD READ THE SECTION ENTITLED RISK FACTORS BEGINNING ON PAGE 1 FOR A DISCUSSION OF CERTAIN RISKS THAT YOU SHOULD CAREFULLY CONSIDER BEFORE BUYING OUR COMMON SHARES.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

This prospectus is dated _____, 2008

Table of Contents

TABLE OF CONTENTS

	Page
<u>SUMMARY</u>	i
<u>RISK FACTORS</u>	1
<u>FORWARD-LOOKING STATEMENTS</u>	11
<u>USE OF PROCEEDS</u>	12
<u>SELLING SHAREHOLDER</u>	12
<u>DESCRIPTION OF CAPITAL STOCK</u>	12
<u>PLAN OF DISTRIBUTION</u>	14
<u>LEGAL MATTERS</u>	16
<u>EXPERTS</u>	16
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	16
<u>SIGNATURES</u>	II-5

Table of Contents

You should rely only on the information contained in this prospectus, in any accompanying prospectus supplement or incorporated herein or therein by reference. Neither we nor the selling shareholder have authorized anyone to provide you with information different from that contained in this prospectus. Offers to sell, and solicitations of offers to buy, our common shares are being made only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of our common shares.

You should not consider any information in this prospectus to be legal, business or tax advice. You should consult your own attorney, business advisor or tax advisor for legal, business and tax advice regarding an investment in our common shares.

Table of Contents

SUMMARY

*The following summary highlights certain information contained in or incorporated by reference in this prospectus. It does not contain all of the information that may be important to you and to your investment decision. The following summary is qualified in its entirety by the more detailed information and the financial statements and the notes included or incorporated by reference in this prospectus. You should carefully read this entire prospectus and should consider, among other things, the matters described in the section entitled *Risk Factors* before deciding to invest in our common shares. References in this prospectus to *K&S*, *we*, *our*, *us* and *our company* refer to *Kulicke and Soffa Industries, Inc.* and its subsidiaries.*

Kulicke and Soffa Industries, Inc.

Overview

Kulicke and Soffa Industries, Inc. designs, manufactures and markets capital equipment and packaging materials as well as services, maintains, repairs and upgrades equipment, all used to assemble semiconductor devices. Our business is divided into two product segments:

equipment, and

packaging materials.

Our goal is to be both the technology leader and the lowest cost supplier in each of our major lines of business. Accordingly, we continue to lower our cost structure by consolidating operations, moving certain of our manufacturing to Asia, moving a portion of our supply chain to lower cost suppliers and designing higher performing, lower cost equipment. Cost reduction efforts are an important part of our normal ongoing operations and we expect to continue to further drive down our cost structure, while not diminishing our product quality.

On September 29, 2008 K&S completed the sale of its wire business unit (the *Wire Sale*) to W.C. Heraeus GmbH (*Heraeus*), a precious metals and technology company based in Hanau, Germany.

October 3, 2008, K&S completed the acquisition (the *Orthodyne Acquisition*) of substantially all of the assets of Orthodyne Electronics Corporation (*Orthodyne*), a privately held company based in Irvine, California, which is the leading supplier of both wedge bonders and wedges for the power management and hybrid module markets. In connection with the Orthodyne Acquisition, we issued 7,117,438 common shares to Orthodyne, and paid Orthodyne an additional \$82.5 million in cash, subject to a working capital adjustment. A total of 15% of the purchase price was deposited into a third-party escrow account as partial security for Orthodyne's indemnification obligations under the asset purchase agreement. In addition, we have agreed to pay Orthodyne up to an additional \$40 million in cash based upon the gross profit realized by the acquired business over the next three years. The registration statement, of which this prospectus forms a part, relates to the 7,117,438 common shares we issued to Orthodyne as partial consideration for the purchased assets.

K&S was incorporated in Pennsylvania in 1956. Our principal offices are located at 1005 Virginia Drive, Fort Washington, Pennsylvania 19034 and our telephone number is (215) 784-6000. We maintain a website with the address www.kns.com. We are not including the information contained on our website as a part of, or incorporating it by reference into, this filing. We make available free of charge (other than an investor's own Internet access charges) on or through our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to these reports, as soon as reasonably practicable after the material is electronically filed with or otherwise furnished to the Securities and Exchange Commission (*SEC*). Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports are also available on the SEC website at www.sec.gov.

Table of Contents

The Offering

Common shares offered	7,117,438 shares, no par value
Offering Price	The selling shareholder may sell the common shares offered hereby from time to time at prevailing market prices or privately negotiated prices. See Plan of Distribution beginning on page 14 of this prospectus.
Use of Proceeds	We will not receive any proceeds from the sale of our common shares by the selling shareholder pursuant to this prospectus.
Risk Factors	See Risk Factors beginning on page 1 and other information contained elsewhere in this prospectus for a discussion of certain risks that you should consider carefully before buying our common shares.
NASDAQ Global Market symbol	KLIC

Table of Contents

RISK FACTORS

An investment in our common shares involves risks. You should carefully consider the following risks, as well as the other information contained in or incorporated by reference in this prospectus. If any of the following risks actually occur, our business and your investment in our common shares, could be negatively affected. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also negatively affect us and your investment in our common shares.

Risks Related to Our Business and Industry

The semiconductor industry is volatile with sharp periodic downturns and slowdowns.

Our operating results are significantly affected by the capital expenditures of large semiconductor manufacturers and their subcontract assemblers and vertically integrated manufacturers of electronic systems. Expenditures by semiconductor manufacturers and their subcontract assemblers and vertically integrated manufacturers of electronic systems depend on the current and anticipated market demand for semiconductors and products that use semiconductors, including personal computers, telecommunications equipment, consumer electronics and automotive goods. Significant downturns in the market for semiconductor devices or in general economic conditions, such as the recent severe deterioration in worldwide economic conditions, reduce demand for our products and materially and adversely affect our business, financial condition and operating results.

Historically, the semiconductor industry has been volatile, with periods of rapid growth followed by industry-wide retrenchment. These periodic downturns and slowdowns have adversely affected our business, financial condition and operating results. They have been characterized by, among other things, diminished product demand, excess production capacity, and accelerated erosion of selling prices. These downturns historically have severely and negatively affected the industry's demand for capital equipment, including the assembly equipment and the packaging materials that we sell. There can be no assurances regarding levels of demand for our products, and in any case, we believe the historical volatility both upward and downward will persist.

We may experience increasing price pressure.

Our historical business strategy for many of our products had focused on product performance and customer service rather than on price. We now continually seek to reduce our cost structure by moving operations to lower cost areas and by reducing other operating costs. If we are unable to realize prices that allow us to continue to compete on the basis of performance and service, our financial condition and operating results may be materially and adversely affected.

Our quarterly operating results fluctuate significantly and may continue to do so in the future.

In the past, our quarterly operating results have fluctuated significantly. We expect quarterly results will continue to fluctuate. Although these fluctuations are partly due to the volatile nature of the semiconductor industry, they also reflect other factors, many of which are outside of our control.

Some of the factors that may cause our net revenues and/or operating margins to fluctuate significantly from period to period are:

market downturns;

the mix of products we sell because, for example:

certain lines of equipment within our business segments are more profitable than others; and

some sales arrangements have higher gross margins than others;

cancelled or deferred orders;

competitive pricing pressures may force us to reduce prices;

Table of Contents

higher than anticipated costs of development or production of new equipment models;

the availability and cost of the components for our products;

delays in the development and manufacture of our new products and upgraded versions of our products and market acceptance of these products when introduced;

customers' delay in purchasing our products due to anticipation that we or our competitors may introduce new or upgraded products; and

our competitors' introduction of new products.

Many of our expenses, such as research and development, selling, general and administrative expenses, and interest expense, do not vary directly with our net revenue. Our research and development efforts include long-term projects lasting a year or more, which require significant investments. In order to realize the benefits of these projects, we believe that we must continue to fund them during periods when our revenue has declined. As a result, a decline in our net revenue would adversely affect our operating results. In addition, if we were to incur additional expenses in a quarter in which we did not experience comparable increased net revenue, our operating results would decline. In a downturn, we may have excess inventory, which is required to be written off. Some of the other factors that may cause our expenses to fluctuate from period-to-period include:

the timing and extent of our research and development efforts;

severance, resizing, and other costs of relocating facilities;

inventory write-offs due to obsolescence; and

increases in the cost of labor or materials.

Because our revenue and operating results are volatile and difficult to predict, we believe consecutive period-to-period comparisons of our operating results may not be a good indication of our future performance.

We may not be able to rapidly develop, manufacture and gain market acceptance of new and enhanced products required to maintain or expand our business.

We believe our continued success depends on our ability to continuously develop and manufacture new products and product enhancements on a timely and cost-effective basis. We must introduce these products and product enhancements into the market in a timely manner in response to customers' demands for higher performance assembly equipment, leading-edge materials customized to address rapid technological advances in integrated circuits, and capital equipment designs. Our competitors may develop new products or enhancements to their products that offer performance, features and lower prices that may render our products less competitive. The development and commercialization of new products requires significant capital expenditures over an extended period of time, and some products that we seek to develop may never become profitable. In addition, we may not be able to develop and introduce products incorporating new technologies in a timely manner that will satisfy our customers' future needs or achieve market acceptance.

Substantially all of our sales and manufacturing operations are located outside of the United States, and we rely on independent foreign distribution channels for certain product lines; all of which subject us to risks, including risks from changes in trade regulations, currency fluctuations, political instability and war.

Edgar Filing: KULICKE & SOFFA INDUSTRIES INC - Form S-3

Approximately 94%, 89% and 95% of our net sales (excluding our wire business) for fiscal 2005, 2006 and 2007, respectively, were to customers located outside of the United States, in particular to customers located in the Asia/Pacific region.

Our future performance will depend on our ability to continue to compete in foreign markets, particularly in the Asia/Pacific region. These economies have been highly volatile, resulting in significant fluctuation in local currencies, and political and economic instability. These conditions may continue or worsen, which may materially and adversely affect our business, financial condition and operating results.

Table of Contents

We also rely on non-United States suppliers for materials and components used in our products, and nearly all of our manufacturing operations are located in countries other than the United States. We manufacture our bonders in Singapore, bonding tools in Israel and China, die bonders in Switzerland and China, and we have sales, service and support personnel in China, Japan, Korea, Malaysia, the Philippines, Singapore, Switzerland, Taiwan, Thailand and throughout Europe. We also rely on independent foreign distribution channels for certain of our product lines. As a result, a major portion of our business is subject to the risks associated with international, and particularly Asia/Pacific, commerce, such as:

risks of war and civil disturbances or other events that may limit or disrupt manufacturing and markets;

seizure of our foreign assets, including cash;

longer payment cycles in foreign markets;

international exchange restrictions;

restrictions on the repatriation of our assets, including cash;

significant foreign and United States taxes on repatriated cash;

the difficulties of staffing and managing dispersed international operations;

possible disagreements with tax authorities regarding transfer pricing regulations;

episodic events outside our control such as, for example, an outbreak of Severe Acute Respiratory Syndrome or influenza;

tariff and currency fluctuations;

changing political conditions;

labor conditions and costs;

foreign governments' monetary policies and regulatory requirements;

less protective foreign intellectual property laws; and

Edgar Filing: KULICKE & SOFFA INDUSTRIES INC - Form S-3

legal systems which are less developed and which may be less predictable than those in the United States. Because most of our foreign sales are denominated in U.S. dollars, an increase in value of the U.S. dollar against foreign currencies will make our products more expensive than those offered by some of our foreign competitors. Our ability to compete overseas in the future may be materially and adversely affected by a strengthening of the U.S. dollar against foreign currencies.

Our international operations also depend upon favorable trade relations between the United States and those foreign countries in which our customers, subcontractors and materials suppliers have operations. A protectionist trade environment in either the United States or those foreign countries in which we do business, such as a change in the current tariff structures, export compliance or other trade policies, may materially and adversely affect our ability to sell our products in foreign markets.

We are exposed to fluctuations in currency exchange rates that could negatively impact our financial results and cash flows.

Because a significant portion of our business is conducted outside the United States, we face exposure to adverse movements in foreign currency exchange rates which could have a material adverse impact on our financial results and cash flows. Historically, our primary exposures have related to net working capital exposures denominated in currencies other than a foreign subsidiaries' functional currency, and remeasurement of our foreign subsidiaries' net monetary assets from the subsidiaries' local currency into the subsidiaries' functional currency. In general, an increase in the value of the U.S. dollar could require certain of our foreign subsidiaries to record translation and remeasurement gains. Conversely, a decrease in the value of the U.S. dollar could require certain of our foreign subsidiaries to record losses on translation and remeasurement. An increase in the value of the U.S. dollar could increase the cost to our customers of our products in those markets outside the United States where we sell in U.S. dollars, and a weakened U.S. dollar could increase the cost of local operating expenses and procurement of raw materials. Our primary

Table of Contents

exposures include the Swiss Franc, Chinese Yuan, Euro, Singapore dollar, Israeli Shekel and Japanese Yen. Our board of directors has granted management with limited authority to enter into foreign exchange forward contracts and other instruments designed to minimize the short term impact currency fluctuations have on our business. We have entered into foreign exchange forward contracts and expect to enter into additional foreign exchange forward contracts and other instruments in the future. Our attempts to hedge against these risks may not be successful and may result in a material adverse impact on our financial results and cash flows.

We may not be able to consolidate manufacturing facilities without incurring unanticipated costs and disruptions to our business.

As part of our ongoing efforts to further reduce our cost structure, we may seek to consolidate our manufacturing facilities. If this occurs, we may incur significant and unexpected costs, delays and disruptions to our business during this consolidation process. Because of unanticipated events, including the actions of governments, suppliers, employees or customers, we may not realize the synergies, cost reductions and other benefits of any consolidation to the extent or within the timeframe that we currently expect.

Our business depends on attracting and retaining management, marketing and technical employees.

Our future success depends on our ability to hire and retain qualified management, marketing and technical employees. In particular, we periodically experience shortages of technical personnel. If we are unable to continue to attract and retain the managerial, marketing and technical personnel we require, our business, financial condition and operating results could be materially and adversely affected.

Difficulties in forecasting demand for our product lines may lead to periodic inventory shortages or excesses.

We typically operate our business with limited visibility of future demand. As a result, we sometimes experience inventory shortages or excesses. We generally order supplies and otherwise plan our production based on internal forecasts for demand. We have in the past, and may again in the future, fail to forecast accurately demand for our products. This has led to and may in the future lead to delays in product shipments or, alternatively, an increased risk of inventory obsolescence. If we fail to forecast accurately demand for our products, including assembly equipment and packaging materials, our business, financial condition and operating results may be materially and adversely affected.

Alternative packaging technologies may render some of our products obsolete.

Alternative packaging technologies have emerged that may improve device performance or reduce the size of an integrated circuit package, as compared to traditional die bonding. These technologies include flip chip and chip scale packaging. Some of these alternative technologies eliminate the need for wires to establish the electrical connection between a die and its package. The semiconductor industry may, in the future, shift a significant part of its volume into alternative packaging technologies, such as those discussed above, which do not employ our products. If a significant shift to alternative packaging technologies were to occur, demand for our equipment and related packaging materials may be materially and adversely affected.

Because a small number of customers account for most of our sales, our revenues could decline if we lose a significant customer.

The semiconductor manufacturing industry is highly concentrated, with a relatively small number of large semiconductor manufacturers and their subcontract assemblers and vertically integrated manufacturers of electronic systems purchasing a substantial portion of our semiconductor assembly equipment and packaging materials. Sales to a relatively small number of customers account for a significant percentage of our net sales. During fiscal 2005, sales in the aggregate to Silicone Precision Industries and Intel, our largest customers accounted for 30% of our net revenue. During fiscal 2006, sales to Stats Chippac, our

Table of Contents

largest customer accounted for 10.7% of our net revenue. During fiscal 2007, sales to Advanced Semiconductor Engineering, our largest customer accounted for 10.7% of our net revenue.

We expect that sales of our products to a small number of customers will continue to account for a high percentage of our net sales for the foreseeable future. Thus, our business success depends on our ability to maintain strong relationships with our customers. Any one of a number of factors could adversely affect these relationships. If, for example, during periods of escalating demand for our equipment, we were unable to add inventory and production capacity quickly enough to meet the needs of our customers, they may turn to other suppliers making it more difficult for us to retain their business. Similarly, if we are unable for any other reason to meet production or delivery schedules, particularly during a period of escalating demand, our relationships with our key customers could be adversely affected. If we lose orders from a significant customer, or if a significant customer reduces its orders substantially, these losses or reductions may materially and adversely affect our business, financial condition and operating results.

We depend on a small number of suppliers for raw materials, components and subassemblies. If our suppliers do not deliver their products to us, we would be unable to deliver our products to our customers.

Our products are complex and require raw materials, components and subassemblies having a high degree of reliability, accuracy and performance. We rely on subcontractors to manufacture many of these components and subassemblies and we rely on sole source suppliers for some important components and raw materials. As a result, we are exposed to a number of significant risks, including:

lack of control over the manufacturing process for components and subassemblies;

changes in our manufacturing processes, in response to changes in the market, which may delay our shipments;

our inadvertent use of defective or contaminated raw materials;

the relatively small operations and limited manufacturing resources of some of our suppliers, which may limit their ability to manufacture and sell subassemblies, components or parts in the volumes we require and at acceptable quality levels and prices;

reliability or quality problems with certain key subassemblies provided by single source suppliers as to which we may not have any short term alternative;

shortages caused by disruptions at our suppliers and subcontractors for a variety of reasons, including work stoppage or fire, earthquake, flooding or other natural disasters;

delays in the delivery of raw materials or subassemblies, which, in turn, may delay our shipments; and

the loss of suppliers as a result of consolidation of suppliers in the industry.

If we are unable to deliver products to our customers on time for these or any other reasons; are unable to meet customer expectations as to cycle time or do not maintain acceptable product quality or reliability, our business, financial condition and operating results may be materially and adversely affected.

We may acquire or divest businesses or enter into joint ventures or strategic alliances, which may materially affect our business, financial condition and operating results.

Edgar Filing: KULICKE & SOFFA INDUSTRIES INC - Form S-3

We continually evaluate our portfolio of businesses and may decide to buy or sell businesses or enter into joint ventures or other strategic alliances. During fiscal 2007, we acquired Alphasem, a manufacturer of die bonders. During fiscal 2008, we both acquired the assets of Orthodyne, a manufacturer of wedge bonders and heavy wire wedges, and sold our wire business to Heraeus, a precious metals and technology group that has a leading position in its markets. We may from time to time in the future seek to acquire or divest other businesses or enter into alliances with other companies. Significant acquisitions and alliances may increase demands on management, engineering, financial resources and information and internal control systems. Our success with respect to acquisitions and alliances will depend, in part, on our ability to manage and integrate acquired businesses and alliances with our existing businesses and to successfully implement,

Table of Contents

improve and expand our systems, procedures and controls. In addition, we may divest existing businesses, which would cause a decline in revenues and may make our financial results more volatile. If we fail to integrate and manage acquired businesses successfully or to manage the risks associated with divestitures, joint ventures or other alliances, our business, financial condition and operating results may be materially and adversely affected.

We may be unable to continue to compete successfully in the highly competitive semiconductor equipment and packaging materials industries.

The semiconductor equipment and packaging materials industries are very competitive. In the semiconductor equipment industry, significant competitive factors include performance, quality, customer support and price. In the semiconductor packaging materials industry, competitive factors include price, delivery and quality.

In each of our markets, we face competition and the threat of competition from established competitors and potential new entrants. In addition, established competitors may combine to form larger, better capitalized companies. Some of our competitors have or may have significantly greater financial, engineering, manufacturing and marketing resources. Some of these competitors are Asian and European companies that have had, and may continue to have, an advantage over us in supplying products to local customers who appear to prefer to purchase from local suppliers, without regard to other considerations.

We expect our competitors to improve their current products' performance, and to introduce new products and materials with improved price and performance characteristics. Our competitors may independently develop technology that is similar to or better than ours. New product and materials introductions by our competitors or by new market entrants could hurt our sales. If a particular semiconductor manufacturer or subcontract assembler selects a competitor's product or materials for a particular assembly operation, we may not be able to sell products or materials to that manufacturer or assembler for a significant period of time. Manufacturers and assemblers sometimes develop lasting relationships with suppliers, and assembly equipment providers in our industry often go years without requiring replacement. In addition, we may have to lower our prices in response to price cuts by our competitors, which may materially and adversely affect our business, financial condition and operating results. If we cannot compete successfully, we could be forced to reduce prices, and could lose customers and market share and experience reduced margins and profitability.

Our success depends in part on our intellectual property, which we may be unable to protect.

Our success depends in part on our proprietary technology. To protect this technology, we rely principally on contractual restrictions (such as nondisclosure and confidentiality provisions) in our agreements with employees, subcontractors, vendors, consultants and customers and on the common law of trade secrets and proprietary know-how. We also rely, in some cases, on patent and copyright protection. We may not be successful in protecting our technology for a number of reasons, including the following:

employees, subcontractors, vendors, consultants and customers may violate their contractual agreements, and the cost of enforcing those agreements may be prohibitive, or those agreements may be unenforceable or more limited than we anticipate;

foreign intellectual property laws may not adequately protect our intellectual property rights; and

our patent and copyright claims may not be sufficiently broad to effectively protect our technology; our patents or copyrights may be challenged, invalidated or circumvented; or we may otherwise be unable to obtain adequate protection for our technology.

In addition, our partners and alliances may also have rights to technology that we develop. We may incur significant expense to protect or enforce our intellectual property rights. If we are unable to protect our intellectual property rights, our competitive position may be weakened.

Table of Contents

Third parties may claim we are infringing on their intellectual property, which could cause us to incur significant litigation costs or other expenses, or prevent us from selling some of our products.

The semiconductor industry is characterized by rapid technological change, with frequent introductions of new products and technologies. Industry participants often develop products and features similar to those introduced by others, creating a risk that their products and processes may give rise to claims that they infringe on the intellectual property of others. We may unknowingly infringe on the intellectual property rights of others and incur significant liability for that infringement. If we are found to have infringed on the intellectual property rights of others, we could be enjoined from continuing to manufacture, market or use the affected product, or be required to obtain a license to continue manufacturing or using the affected product. A license could be very expensive to obtain or may not be available at all. Similarly, changing or re-engineering our products or processes to avoid infringing the rights of others may be costly, impractical or time consuming.

Occasionally, third parties assert that we are, or may be, infringing on or misappropriating their intellectual property rights. In these cases, we will defend against claims or negotiate licenses where we consider these actions appropriate. Intellectual property cases are uncertain and involve complex legal and factual questions. If we become involved in this type of litigation, it could consume significant resources and divert our attention from our business.

We may be materially and adversely affected by environmental and safety laws and regulations.

We are subject to various federal, state, local and foreign laws and regulations governing, among other things, the generation, storage, use, emission, discharge, transportation and disposal of hazardous material, investigation and remediation of contaminated sites and the health and safety of our employees. Increasingly, public attention has focused on the environmental impact of manufacturing operations and the risk to neighbors of chemical releases from such operations.

Proper waste disposal plays an important role in the operation of our manufacturing plants. In many of our facilities we maintain wastewater treatment systems that remove metals and other contaminants from process wastewater. These facilities operate under permits that must be renewed periodically. A violation of those permits may lead to revocation of the permits, fines, penalties or the incurrence of capital or other costs to comply with the permits, including potential shutdown of operations.

Compliance with existing or future, land use, environmental and health and safety laws and regulations may: (1) result in significant costs to us for additional capital equipment or other process requirements, (2) restrict our ability to expand our operations and/or (3) cause us to curtail our operations. We also could incur significant costs, including cleanup costs, fines or other sanctions and third-party claims for property damage or personal injury, as a result of violations of or liabilities under such laws and regulations. We cannot assure you that any costs or liabilities to comply with or imposed under these laws and regulations will not materially and adversely affect our business, financial condition and operating results.

We may be unable to generate enough cash to repay our debt.

Our ability to make payments on our indebtedness and to fund planned capital expenditures and other activities will depend on our ability to generate cash in the future. If our convertible debt is not converted to shares of our common shares, we will be required to make annual cash interest payments of \$1.7 million in fiscal 2009, \$1.6 million in fiscal 2010, \$1.0 million in fiscal 2011 and \$1.0 million in fiscal 2012 on an aggregate \$204.4 million of convertible subordinated debt (assuming that we do not purchase any additional outstanding 0.5% Convertible Notes). Principal payments of \$29.4 million, \$65.0 million and \$110.0 million on the convertible subordinated debt are due in fiscal 2009, 2010 and 2012, respectively. Our ability to make payments on our indebtedness is affected by the volatile nature of our business, and general economic, competitive and other factors that are beyond our control. Our indebtedness poses risks to our business, including that:

insufficient cash flow from operations to repay our outstanding indebtedness when it becomes due may force us to sell assets, or seek additional capital, which we may be unable to do at all or on terms favorable to us; and

our level of indebtedness may make us more vulnerable to economic or industry downturns.

We cannot assure you that our business will generate cash in an amount sufficient to enable us to service interest, principal and other payments on our debt, including the notes, or to fund our other liquidity needs.

Table of Contents

We are not restricted under the agreements governing our existing indebtedness from incurring additional debt in the future. If new debt is added to our current levels, our leverage and our debt service obligations would increase and the related risks described above could intensify.

We have the ability to issue additional equity securities, which would lead to dilution of our issued and outstanding common shares.

The issuance of additional equity securities or securities convertible into equity securities will result in dilution of existing shareholders' equity interests in us. Our board of directors has the authority to issue, without vote or action of shareholders, preferred shares in one or more series, and has the ability to fix the rights, preferences, privileges and restrictions of any such series. Any such series of preferred shares could contain dividend rights, conversion rights, voting rights, terms of redemption, redemption prices, liquidation preferences or other rights superior to the rights of holders of our common shares. In addition, we are authorized to issue, without shareholder approval, up to an aggregate of 200 million common shares, of which approximately 60,824,937 million shares were outstanding as of October 23, 2008. We are also authorized to issue, without shareholder approval, securities convertible into either common shares or preferred shares.

Weaknesses in our internal controls and procedures could result in material misstatements in our financial statements.

Pursuant to the Sarbanes-Oxley Act, management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal controls over financial reporting are processes designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with U.S. generally accepted accounting principles. A material weakness is a control deficiency, or combination of control deficiencies, that results in a more than remote likelihood that a material misstatement of annual or interim financial statements will not be prevented or detected.

Our internal controls may not prevent all potential errors or fraud, because any control system, no matter how well designed and implemented, can only provide reasonable and not absolute assurance that the objectives of the control system will be achieved. We cannot assure you that we or our independent registered public accountants will not in the future identify other material weaknesses in our internal controls, which could adversely affect our ability to insure proper financial reporting and could affect investor confidence in us and the price of our common shares.

Accounting methods, including but not limited to the accounting method for convertible debt securities with net share settlement, such as our 0.875% Subordinated Convertible Notes, are subject to change.

In calculating our diluted earnings per share, we currently account for the 0.875% Subordinated Convertible Notes in accordance with FASB Emerging Issues Task Force (EITF) Issue No. 90-19, *Convertible Bonds with Issuer Option to Settle for Cash upon Conversion* (EITF 90-19). The accounting method for a convertible debt security that meets the requirements of EITF 90-19 is similar to the accounting for non-convertible debt. We recognize interest expense at the stated coupon rate, and shares potentially issuable upon conversion of the debt are excluded from the calculation of diluted earnings per share until the market price of our common shares exceeds the conversion price (i.e., the conversion price is in the money). Once the conversion price is in the money, the shares that we would issue upon assumed conversion of the debt are included in the calculation of fully diluted earnings per share using the treasury stock method. No separate value is attributed to the conversion feature of the debt at the time of issuance.

In May 2008, the FASB issued FSP APB 14-1, which is effective for fiscal years beginning after December 15, 2008. FSP APB 14-1 specifies that issuers of convertible debt instruments that may be settled in cash upon conversion should separately account for the liability and equity components in a manner that will reflect the entity's nonconvertible debt borrowing rate when interest cost is recognized in subsequent periods.

As compared to the current accounting method, the proposal would reduce the amount recognized as debt and increase the amount recognized as shareholder's equity at the time of issuance. The amount of debt

Table of Contents

recognized at time of issuance would increase over the life of the notes, with a corresponding increase in interest expense and reduction of net income and earnings per share (net of tax), for the amortization of the original issue discount. We will adopt FSP APB 14-1 beginning fiscal 2010, with retrospective application to financial statements for periods prior to the date of adoption.

This change in the accounting method for convertible debt securities will have an adverse impact on our reported and future results of operations, and could adversely affect the trading price of our common shares or the trading price of the notes.

Other Risks

Anti-takeover provisions in our articles of incorporation and bylaws, and under Pennsylvania law may discourage other companies from attempting to acquire us.

Some provisions of our articles of incorporation and bylaws as well as Pennsylvania law may discourage some transactions where we would otherwise experience a fundamental change. For example, our articles of incorporation and bylaws contain provisions that:

classify our board of directors into four classes, with one class being elected each year;

permit our board to issue blank check preferred shares without shareholder approval; and

prohibit us from engaging in some types of business combinations with a holder of 20% or more of our voting securities without super-majority board or shareholder approval.

Further, under the Pennsylvania Business Corporation Law, because our shareholders approved bylaw provisions that provide for a classified board of directors, shareholders may remove directors only for cause. These provisions and some other provisions of the Pennsylvania Business Corporation Law could delay, defer or prevent us from experiencing a fundamental change and may adversely affect our common shareholders voting and other rights.

Terrorist attacks, or other acts of violence or war may affect the markets in which we operate and our profitability.

Terrorist attacks may negatively affect our operations. There can be no assurance that there will not be further terrorist attacks against the United States or United States businesses. Terrorist attacks or armed conflicts may directly impact our physical facilities or those of our suppliers or customers. Our primary facilities include administrative, sales and research and development facilities in the United States and manufacturing facilities in the United States, Singapore, Switzerland, China and Israel. Additional terrorist attacks may disrupt the global insurance and reinsurance industries with the result that we may not be able to obtain insurance at historical terms and levels for all of our facilities.

Furthermore, additional attacks may make travel and the transportation of our supplies and products more difficult and more expensive and ultimately affect the sales of our products in the United States and overseas. Additional attacks or any broader conflict, could negatively impact our domestic and international sales, our supply chain, our production capability and our ability to deliver products to our customers. Political and economic instability in some regions of the world could negatively impact our business. The consequences of terrorist attacks or armed conflicts are unpredictable, and we may not be able to foresee events that could have an adverse effect on our business.

Provisions of our Subordinated Convertible Notes could discourage an acquisition of us by a third party.

Certain provisions of our outstanding Subordinated Convertible Notes could make it more difficult or more expensive for a third party to acquire us. Upon the occurrence of certain transactions constituting a fundamental change, holders of the Subordinated Convertible Notes will have the right, at their option, to require us to repurchase all of their notes at a price equal to 100% of the principal amount of notes to be repurchased, plus accrued and unpaid interest, plus a premium, if applicable. In addition, pursuant to the terms of the 0.875% Subordinated Convertible Notes, we may not enter into certain mergers unless, among other things, the surviving entity assumes all of our obligations under the indenture and the notes.

Table of Contents

The market price of our common shares and our earnings per share may decline as a result of the acquisition of Orthodyne and the sale of our wire business to Heraeus.

The market price of our common shares may decline as a result of, among other things, the Orthodyne Acquisition and the Wire Sale if we do not achieve the perceived benefits of the Orthodyne Acquisition or Wire Sale as rapidly or to the extent anticipated by financial or industry analysts or if the effect of the Orthodyne Acquisition or Wire Sale on our financial results is not consistent with the expectations of financial or industry analysts. In addition, the failure to achieve expected benefits and unanticipated costs relating to the Orthodyne Acquisition could reduce our future earnings per share.

If we are unable to successfully integrate the operations of Orthodyne, its business and earnings may be negatively affected.

The Orthodyne Acquisition will involve the integration a company that has previously operated independently. Successful integration of the operations of Orthodyne will depend primarily on our ability to consolidate operations, systems procedures, properties and personnel and to eliminate redundancies and costs. The Orthodyne Acquisition will also pose other risks commonly associated with similar transactions, including unanticipated liabilities, unexpected costs and the diversion of management's attention to the integration of the operations of K&S and Orthodyne. We may not be able to integrate Orthodyne's operations without encountering difficulties, including, but not limited to, the loss of key employees, the disruption of its respective ongoing businesses or possible inconsistencies in standards, controls, procedures and policies. Estimated cost savings are projected to come from various areas that our management has identified through the due diligence and integration planning process. If we have difficulties with any of these integrations, we might not achieve the economic benefits it expects to result from the Orthodyne Acquisition, and this may hurt our business and earnings. In addition, K&S we experience greater than expected costs or difficulties relating to the integration of the business of Orthodyne and/or may not realize expected cost savings from the Orthodyne Acquisition within the expected time frame, if at all.

Integrating the companies may divert management's attention away from our existing operations.

The successful integration of Orthodyne with our technical and business operations and personnel may place a significant burden on our management and internal resources. The diversion of management's attention and any difficulties encountered in the transition and integration process may hurt our business and earnings.

Completion of the Orthodyne Acquisition may result in dilution of future earnings per share to our shareholders.

The completion of the Orthodyne Acquisition may result in net losses or a weaker financial condition compared to that which would have been achieved had the Orthodyne Acquisition not occurred. The Orthodyne Acquisition could fail to produce the benefits that we anticipate, or could have other adverse effects that we currently do not foresee. In addition, some of the assumptions that we have made, such as the achievement of operating synergies, may not be realized. In this event, the Orthodyne Acquisition could result in losses that would not have been incurred by us had the Orthodyne Acquisition not occurred.

If we fail to retain key employees, the benefits of the Orthodyne Acquisition could be diminished.

The success of the acquisition of Orthodyne will depend, in part, on the retention of key personnel. There can be no assurance we will be able to retain Orthodyne's key management.

The Wire Sale could have an unexpected impact on our remaining lines of business.

The completion of the sale of our wire business to Heraeus may have an unexpected impact on our other lines of business and our future earnings per share to our shareholders that we currently do not foresee and

Table of Contents

that would not have occurred had the Wire Sale not taken place. Such unexpected impact may include a loss of competitive advantage in our other lines due to lost synergies with the wire business.

The costs associated with the Orthodyne Acquisition are difficult to estimate, may be higher than expected and may harm our financial results.

We incurred direct transaction costs of approximately \$3.1 million associated with the Orthodyne Acquisition, and additional costs associated with the consolidation and integration of operations, which cannot be estimated accurately at this time. If the total costs of the Orthodyne Acquisition exceed our estimates or the benefits of the Orthodyne Acquisition do not exceed the total costs of the Orthodyne Acquisition, our financial results could be adversely affected.

The number of shares being registered for resale is significant in relation to our outstanding shares and trading volume and sales of substantial amounts of our common stock may adversely affect our market price.

As of October 23, 2008, we had 60,824,937 shares of common stock outstanding and our average weekly trading volume during the four full weeks prior to such date was 2,921,950. We filed a registration statement with the SEC, of which this prospectus is a part, for the public resale of up to an aggregate of 7,117,438 common shares. Accordingly, so long as the registration statement remains effective, and subject to any other agreement then in effect between the selling shareholder and us limiting the selling shareholder's right of resale, the common shares to which this prospectus relates will be freely tradable in the public markets without restriction and sales of a substantial number of shares could occur at any time during such period. Such sales may adversely affect the prevailing market prices of our common stock.

FORWARD-LOOKING STATEMENTS

In addition to historical information, this prospectus contains statements relating to future events or our future results. These statements are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the Securities Act) and Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act), and are subject to the safe harbor provisions created by statute. Such forward-looking statements include, but are not limited to, statements that relate to our future revenue, product development, demand forecasts, competitiveness, operating expenses, cash flows, profitability, gross margins, and benefits expected as a result of (among other factors):

projected growth rates in the overall semiconductor industry, the semiconductor assembly equipment market, and the market for semiconductor packaging materials; and

projected demand for ball, wedge and die bonder equipment.

Generally, words such as may, will, should, could, anticipate, expect, intend, estimate, plan, continue, goal and believe, or the negative of or other variations on these and other similar expressions identify forward-looking statements. These forward-looking statements are made only as of the date of this filing. We do not undertake to update or revise the forward-looking statements, whether as a result of new information, future events or otherwise.

Forward-looking statements are based on current expectations and involve risks and uncertainties and our future results could differ significantly from those expressed or implied by our forward-looking statements. These risks and uncertainties include, without limitation, those described below and under the heading Risk Factors within our reports and registration statements filed from time to time with the Securities and Exchange Commission. This discussion should be read in conjunction with the Consolidated Financial Statements and Notes included in this report.

We operate in a rapidly changing and competitive environment. New risks emerge from time to time and it is not possible for us to predict all risks that may affect us. Future events and actual results, performance and achievements could differ materially from those set forth in, contemplated by or underlying the forward-looking statements, which speak only as of the date on which they were made. Except as required

Table of Contents

by law, we assume no obligation to update or revise any forward-looking statement to reflect actual results or changes in, or additions to, the factors affecting such forward-looking statements. Given those risks and uncertainties, investors should not place undue reliance on forward-looking statements as prediction of actual results.

USE OF PROCEEDS

We will not receive any proceeds from the sale of our common shares by the selling shareholder pursuant to this prospectus.

SELLING SHAREHOLDER

We are registering the resale from time to time of up to 7,117,438 common shares issued to Orthodyne in connection with the purchase of certain assets of the selling shareholder pursuant to an Asset Purchase Agreement by and between Orthodyne and the Company dated July 31, 2008, which was completed on October 3, 2008. The selling shareholder, including its transferees, pledgees or donees or their successors, may from time to time offer and sell under this prospectus or a supplement hereto any or all of the common shares. In the event that a sale is to be made pursuant to this prospectus by a pledgee or other transferee, we will provide appropriate information regarding such pledgee or transferee by a prospectus supplement or post-effective amendment, if necessary, naming such pledgee or transferee as a selling shareholder.

The following table contains information we received from the selling shareholder on or before October 24, 2008, with respect to the selling shareholder and the number of common shares beneficially owned by it before the offering and the shares that may be offered using this prospectus. The selling shareholder will act independently of us in making decisions with respect to the timing, manner and size of the sale or sales of common shares covered by this prospectus. We cannot estimate the number of shares the selling shareholder will hold after the completion of the offering by the selling shareholder because it may sell all or a portion of the shares offered by this prospectus. We have assumed for purposes of this table that none of the shares offered by this prospectus will be held by the selling shareholder after the completion of this offering. Our registration of common shares held by the selling shareholder does not necessarily mean that the selling shareholder will sell all or any of its shares.

NAME	NUMBER	NUMBER	NUMBER	PERCENTAGE
	OF COMMON STOCK OWNED BEFORE THE OFFERING	OF COMMON STOCK THAT MAY BE SOLD	OF COMMON STOCK OWNED AFTER THE OFFERING	OF COMMON STOCK OWNED AFTER THE OFFERING
Orthodyne Electronics Corporation	7,117,438	7,117,438	0	0%

DESCRIPTION OF CAPITAL STOCK

Pursuant to our articles of incorporation, our authorized capital stock consists of 205,000,000 shares, of which:

5,000,000 shares are designated as preferred shares, without par value, of which none are outstanding; and

200,000,000 shares are designated and authorized as common shares, without par value, of which 60,824,937 shares are outstanding as of October 23, 2008.

Table of Contents

Common shares

The holders of our common shares are entitled to one vote per share for each share held of record on all matters submitted to a vote of shareholders. Subject to preferential rights with respect to any series of preferred shares that may be issued, holders of our common shares are entitled to receive ratably such dividends as may be declared by our board of directors on the common shares out of funds legally available therefor and, in the event of a liquidation, dissolution or winding-up of our affairs, are entitled to share equally and ratably in all of our remaining assets and funds. In the election of directors, the holders of our common shares have cumulative rights, meaning that they may multiply the number of votes the shareholder is entitled to cast by the total number of directors to be elected at a meeting of shareholders and cast the whole number of votes for one candidate or distribute them among some or all candidates. The holders of our common shares have no preemptive rights or rights to convert shares of our common shares into any other securities and are not subject to future calls or assessments by us. All outstanding shares of our common shares are fully paid and nonassessable.

Preferred Stock

By resolution of our board of directors and without any further vote or action by the shareholders, we may issue preferred shares in one or more series and fix from time to time the number of shares to be included in each such series, and the designations, preferences, qualifications, limitations, restrictions and special or relative rights of the shares of each such series. Our ability to issue preferred shares, while providing flexibility in connection with possible acquisitions and other corporate purposes, could adversely affect the voting power of the holders of the common shares and could have the effect of making it more difficult for a person to acquire, or of discouraging a person from attempting to acquire, control of us. We have no present plans to issue any of the preferred shares.

Anti-takeover Provisions of Applicable Pennsylvania Law and Our Articles of Incorporation and By-laws

Some provisions of our articles of incorporation and by-laws and Pennsylvania law may discourage certain transactions involving a fundamental change of Kulicke & Soffa. For example, our articles of incorporation and by-laws contain provisions that (1) classify the board of directors into four classes, with one class being elected each year, (2) permit the board to issue blank check preferred shares without shareholder approval, as discussed above, and (3) prohibit us from engaging in certain business combinations with a holder of 20% or more of our voting securities without super-majority board or shareholder approval. Further, under the Pennsylvania Business Corporation Law, because our by-laws provide for a classified board of directors, shareholders may only remove directors for cause. These provisions and certain other provisions of the Pennsylvania Business Corporation Law could have the effect of delaying, deferring or preventing a fundamental change of Kulicke & Soffa and may adversely affect the voting and other rights of holders of common shares.

Transfer Agent and Registrar

American Stock Transfer and Trust Company is the transfer agent and registrar for our common shares, with offices in New York, New York.

NASDAQ Global Market Listing

Our common shares trades on the Nasdaq under the symbol **KLIC** .

Table of Contents

PLAN OF DISTRIBUTION

We are registering the resale from time to time of up to 7,117,438 common shares issued to the selling shareholder in connection with the purchase of certain assets of the selling shareholder pursuant to an Asset Purchase Agreement dated as of July 31, 2008 by and between the selling shareholder and the Company. We will not receive any of the proceeds from the sale of the common shares by the selling shareholder pursuant to this prospectus.

The selling shareholder may sell all or a portion of the common shares beneficially owned by it and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the common shares are sold through underwriters or broker-dealers, the selling shareholder will be responsible for underwriting discounts or commissions or agent's commissions. The common shares may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions,

on any national securities exchange or quotation service on which the common shares may be listed or quoted at the time of sale;

in the over-the-counter market;

in transactions otherwise than on these exchanges or systems or in the over-the-counter market;

through the writing of options, whether such options are listed on an options exchange or otherwise;

in ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

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

through purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

in an exchange distribution in accordance with the rules of the applicable exchange;

in privately negotiated transactions;

through short sales;

in sales pursuant to Rule 144;

through the sale by broker-dealers of a specified number of such shares at a stipulated price per share;

in a combination of any such methods of sale; and

through any other method permitted pursuant to applicable law.

Table of Contents

If the selling shareholder effects such transactions by selling common shares to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling shareholder or commissions from purchasers of the common shares for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). In connection with sales of the common shares or otherwise, the selling shareholder may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the common shares in the course of hedging positions they assume. The selling shareholder may also sell common shares short and deliver common shares covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling shareholder may also loan or pledge common shares to broker-dealers that in turn may sell such shares.

The selling shareholder may pledge or grant a security interest in some or all of the common shares owned by them and, if they default in the performance of its secured obligations, the pledgees or secured parties may offer and sell the common shares from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933 (the "Securities Act"), as amended, amending, if necessary, the list of selling shareholders to include the pledgee, transferee or other successors in interest as selling shareholder under this prospectus. The selling shareholder also may transfer and donate the common shares in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling shareholder and any broker-dealer participating in the distribution of the common shares may be deemed to be underwriters within the meaning of the Securities Act, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. At the time a particular offering of the common shares is made, a prospectus supplement, if required, will be distributed which will set forth the aggregate amount of common shares being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling shareholder and any discounts, commissions or concessions allowed or reallocated or paid to broker-dealers.

Under the securities laws of some states, the common shares may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the common shares may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any selling shareholder will sell any or all of the common shares registered pursuant to the registration statement, of which this prospectus forms a part.

The selling shareholder and any other person participating in such distribution will be subject to applicable provisions of the Securities Exchange Act of 1934 (the "Exchange Act"), as amended, and the rules and regulations thereunder, including, without limitation, to the extent applicable, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the common shares by the selling shareholder and any other participating person. To the extent applicable, Regulation M may also restrict the ability of any person engaged in the distribution of the common shares to engage in market-making activities with respect to the common shares. All of the foregoing may affect the marketability of the common shares and the ability of any person or entity to engage in market-making activities with respect to the common shares.

We agreed to use our commercially reasonable efforts to keep the registration statement effective until the earlier of (i) when the selling shareholder and each of the shareholders of the selling shareholder are eligible to sell the common shares registered under this registration statement pursuant to Rule 144 without limitation as to volume, and (ii) when all common shares registered under this registration statement have been sold.

Table of Contents

Once sold under the shelf registration statement, of which this prospectus forms a part, the common shares will be freely tradable.

LEGAL MATTERS

Drinker Biddle & Reath LLP, Philadelphia, Pennsylvania has provided us with an opinion as to the validity of the common shares offered by this prospectus.

EXPERTS

The financial statements of K&S and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended September 29, 2007 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The financial statements of Orthodyne Electronics Corporation incorporated into this prospectus by reference from K&S's Current Report on Form 8-K/A dated October 27, 2008 have been audited by McGladrey & Pullen, LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

K&S files annual, quarterly, special reports, proxy statements and other information with the Securities and Exchange Commission. These documents contain specific information regarding K&S. These documents, including exhibits and schedules thereto, may be inspected without charge at the Securities and Exchange Commission's principal office in Washington, D.C., and copies of all or any part thereof may be obtained from the Public Reference Section of the Securities and Exchange Commission, 100 F Street, N.E., Washington, D.C. 20549. Information on the operation of the Public Reference Section may be obtained by calling the Securities and Exchange Commission at 1-800-SEC-0300. The Securities and Exchange Commission also maintains a World Wide Web site which provides online access to reports, proxy and information statements and other information regarding registrants that file electronically with the Securities and Exchange Commission at the address <http://www.sec.gov>.

K&S makes its annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act available (free of charge) on or through its Internet website located at <http://www.KnS.com>, as soon as reasonably practicable after they are filed with or furnished to the Securities and Exchange Commission. The information contained on K&S's website does not form a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The Securities and Exchange Commission allows K&S to incorporate by reference information into this prospectus. This means that K&S can disclose important information to you by referring you to another document filed separately with the Securities and Exchange Commission. These documents contain important information about K&S and its financial condition. The information incorporated by reference is considered to be part of this prospectus.

Information that K&S files later with the Securities and Exchange Commission will automatically update and supersede this information. K&S incorporates by reference the documents listed below and any future filings it will make with the Securities and Exchange Commission under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until this offering of securities is terminated, except for information furnished

Table of Contents

under Item 2.02 or Item 7.01 of Form 8-K which is neither deemed filed nor incorporated by reference herein:

1. K&S's Annual Report on Form 10-K for the year ended September 29, 2007;
2. K&S's Quarterly Report for the period ended December 29, 2007;
3. K&S's Quarterly Report for the period ended March 29, 2008;
4. K&S's Quarterly Report for the period ended June 29, 2008; and
5. K&S's Current Reports on Form 8-K filed on July 31, 2008, October 2, 2008, October 3, 2008, October 8, 2008 (as amended by the Current Report on Form 8-K/A filed on October 27, 2008), and October 15, 2008.

All documents and reports filed by K&S pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act after the date of this Registration Statement and prior to the filing of a post-effective amendment hereto which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part hereof from the date of filing of such documents or reports. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified shall not be deemed to constitute a part of the Registration Statement except as so modified and any statement so superseded shall not be deemed to constitute a part of this Registration Statement.

We will provide to you without charge, upon receipt of your written or oral request, a copy of any or all of the documents which are incorporated by reference in this prospectus, other than exhibits which are not specifically incorporated by reference in such documents. You should direct written or telephone requests to Investor Relations Department, Kulicke and Soffa Industries, Inc., 1005 Virginia Drive, Fort Washington, PA 19034, telephone (215) 784-6000.

You should rely only upon the information provided in this prospectus. We have not authorized anyone to provide you with different information. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus.

Our logo appearing on the front and back covers of this prospectus and Maxum[®], Maxum Plus[®], Nu-Tek[®], WaferPRO[®], Triton RDA[®], and DuraPlus[®] are trademarks of Kulicke and Soffa Industries, Inc. Other brands, names and trademarks contained in this prospectus are the property of their respective owners.

Table of Contents

Table of Contents**PART II****INFORMATION NOT REQUIRED IN PROSPECTUS****Item 14. Other Expenses of Issuance and Distribution.**

The following table sets forth the various expenses payable by us in connection with the sale of the common shares being registered. All of the amounts shown are estimated except the SEC registration fee.

Securities and Exchange Commission registration fee	\$ 730
Printing expenses	\$ 3,000
Accounting fees and expenses	\$ 50,000
Legal fees and expenses	\$ 10,000
Total	\$ 63,730

Item 15. Indemnification of Directors and Officers.

K&S's by-laws require it to indemnify any person who is or was a party or witness in any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, including without limitation one brought by or in the right of K&S, by reason of the fact that he or she is or was a director or officer of K&S or is or was serving while a director or officer at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such proceeding, except to the extent such indemnification is prohibited by applicable law. K&S's by-laws provide that such persons are automatically entitled to advances from K&S for the payment of certain expenses incurred by such persons upon receipt of an undertaking by or on behalf of the person to repay such advances if it is ultimately determined that the person is not entitled to indemnification by K&S. Notwithstanding anything to the contrary, K&S is not obligated to indemnify any person or advance expenses with respect to any action, suit or proceeding commenced by the person, other than mandatory counterclaims and affirmative defenses. K&S may indemnify employees and agents of K&S, and advance expenses to them, on the same basis as provided in the by-laws for directors and officers, as the board of directors of K&S may from time to time determine or authorize.

Table of Contents

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

Exhibit No.	Description
2.1	Master Sale and Purchase Agreement between W.C. Heraeus GmbH and Kulicke and Soffa Industries, Inc., dated July 31, 2008, filed as Exhibit 10.1 to the Company's Form 8-K dated July 31, 2008, is incorporated herein by reference.
2.2	Asset Purchase Agreement between Orthodyne Electronics Corporation and Kulicke and Soffa Industries, Inc., dated July 31, 2008, filed as Exhibit 10.2 to the Company's Form 8-K dated July 31, 2008, is incorporated herein by reference.
2.3	Earnout Agreement between Orthodyne Electronics Corporation and Kulicke and Soffa Industries, Inc. dated July 31, 2008, filed as Exhibit 10.3 to the Company's Form 8-K dated July 31, 2008, is incorporated herein by reference.
5.1	Opinion of Drinker Biddle & Reath LLP
23.1	Consent of PricewaterhouseCoopers LLP
23.2	Consent of McGladrey & Pullen, LLP
23.3	Consent of Drinker Biddle & Reath LLP (incorporated by reference to Exhibit 5.1 to this Registration Statement).

Table of Contents

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

1. To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - i. To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;
 - ii. To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement.
 - iii. To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;
2. That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
3. To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
4. That, for purposes of determining liability under the Securities Act of 1933 to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness; provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
5. To deliver or cause to be delivered with the prospectus, to each person to whom the prospectus is sent or given, the latest annual report to security holders that is incorporated by reference in the prospectus and furnished pursuant to and meeting the requirements of Rule 14a-3 or Rule 14c-3 under the Securities Exchange Act of 1934; and, where interim financial information required to be presented by Article 3 of Regulation S-X are not set forth in the prospectus, to deliver, or cause to be delivered to each person to whom the prospectus is sent or given, the latest quarterly report that is specifically incorporated by reference in the prospectus to provide such interim financial information.

Table of Contents

6. For purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

7. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Fort Washington, State of Pennsylvania on this 27th day of October, 2008.

KULICKE AND SOFFA INDUSTRIES, INC.

By: /s/ C. Scott Kulicke
 C. Scott Kulicke
 Chairman of the Board and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

NAME	CAPACITY	DATE
/s/ C. Scott Kulicke	Chairman of the Board and Chief Executive Officer	October 27, 2008
C. Scott Kulicke		
/s/ Maurice E. Carson	Senior Vice President and Chief Financial Officer (principal financial officer and principal)	October 27, 2008
Maurice E. Carson		
/s/ Brian R. Bachman	Director	October 27, 2008
Brian R. Bachman		
/s/ John A. O Steen	Director	October 27, 2008
John A. O Steen		
/s/ Garrett E. Pierce	Director	October 27, 2008
Garrett E. Pierce		
/s/ MacDonell Roehm, Jr.	Director	October 27, 2008
MacDonell Roehm, Jr.		
/s/ Barry Waite	Director	October 27, 2008
Barry Waite		
/s/ C. William Zadel	Director	October 27, 2008
C. William Zadel		

Table of Contents

EXHIBIT INDEX

Exhibit No.	Description
2.1	Master Sale and Purchase Agreement between W.C. Heraeus GmbH and Kulicke and Soffa Industries, Inc., dated July 31, 2008, filed as Exhibit 10.1 to the Company's Form 8-K dated July 31, 2008, is incorporated herein by reference.
2.2	Asset Purchase Agreement between Orthodyne Electronics Corporation and Kulicke and Soffa Industries, Inc., dated July 31, 2008, filed as Exhibit 10.2 to the Company's Form 8-K dated July 31, 2008, is incorporated herein by reference.
2.3	Earnout Agreement between Orthodyne Electronics Corporation and Kulicke and Soffa Industries, Inc. dated July 31, 2008, filed as Exhibit 10.3 to the Company's Form 8-K dated July 31, 2008, is incorporated herein by reference.
5.1	Opinion of Drinker Biddle & Reath LLP
23.1	Consent of PricewaterhouseCoopers LLP
23.2	Consent of McGladrey & Pullen, LLP
23.3	Consent of Drinker Biddle & Reath LLP (incorporated by reference to Exhibit 5.1 to this Registration Statement).