



MKS INSTRUMENTS, INC.

Our mission is to be the market and technology leader in gas measurement, control and analysis products by enhancing yield, throughput and uptime for our customers in the semiconductor and other advanced processing industries.

1998

For MKS Instruments, 1998 was a challenging year as we managed through a severe downturn in our core market, the semiconductor equipment industry. Despite the difficult business environment, we maintained operating profitability each quarter and made the necessary investments that further enhanced our technology leadership in gas measurement, control and analysis products. As a result, we have emerged from the adverse conditions of 1998 as a stronger company that is well positioned to capitalize on the predicted rebound of the semiconductor equipment industry.

“Around the process, Around the world,” succinctly encapsulates our business philosophy – to provide our 4,000 active customers in the semiconductor and other advanced processing industries with the products and support they need to improve their returns on invested capital by boosting yields, increasing throughput and extending manufacturing uptime. Since our founding in 1961, our objective has been to grow our business and enhance customer relationships by executing on these primary strategies: increasing our technology leadership; offering the broadest product portfolio; extending our reach into new yet related markets; and leveraging our global infrastructure. I am pleased with the progress we made in each element of our strategy during the past year.

FINANCIAL REVIEW

In 1998, the downturn in the semiconductor industry posed a challenge to MKS’s core business, as semiconductor manufacturers and their equipment suppliers worldwide postponed purchasing and expansion decisions. The company’s 1998 financial results reflect the severity of this trend. Sales in 1998 were \$139.8 million, compared with \$188.1 million in 1997. However, industry experts believe that the industry’s recovery is now underway. In fact, our fourth-quarter sales were higher than the third quarter – the first sequential sales gain in one year.

During 1998, management responded decisively and effectively to the industry’s downturn with a comprehensive cost containment program that included manufacturing outsourcing, expense reductions and the elimination of some temporary and contract positions. As a result, MKS maintained its quarterly profitability despite lower sales. The company reported 1998 pro forma net income of \$5.0 million, or \$0.24 per diluted share. We believe we now have a cost structure in place that offers us potential to improve our earnings as we generate sales growth.

INITIAL PUBLIC OFFERING

In March 1999, after more than 37 years as a privately held company, MKS entered a new phase in the company’s history by successfully completing an initial public offering of 6 million shares of common stock at \$14.00 per share. The net proceeds from the offering substantially strengthen our balance sheet, providing us with the financial flexibility necessary to facilitate our continued growth and to fund potential acquisitions. We believe that our status as a public company will have a number of other benefits, such as helping us to attract, motivate and retain talented employees. In addition, being a public company brings a new level of visibility to MKS.

1998 HIGHLIGHTS

Technology Leadership

Despite reducing expenses in 1998, MKS enhanced its technology leadership as we maintained research and development spending levels consistent with previous years. MKS remained at the forefront of technological innovation and on the leading edge of material sciences by participating in industry consortiums and partnering with respected academic institutions. Our R&D initiatives are aligned with the Semiconductor Industry Association Technology Roadmap, which identifies the technological developments necessary to produce future generations of microchips and other semiconductor devices. Further protecting our investments in technology, we were awarded seven U.S. patents in 1998, and have already received another two in 1999 – bringing our total to 49 patents with eight more pending.

Key Product Introductions

Our investments in research and development yielded tangible results in the form of new generations of components and instrumentation that will help our customers measurably increase their productivity and reduce their production costs. During the year, we introduced a number of new products. Among the most notable was the Micro Baratron® gas pressure transducer, a significantly smaller version of our industry-leading pressure measurement instrument, and the Orion® Compact Process Monitor, which analyzes the composition of background and process gases inside the process chamber. Our broad array of products is an important competitive advantage for MKS, enabling us to win additional business from customers seeking to reduce costs and streamline their businesses by consolidating supplier relationships.

New Design Wins & New Markets

MKS's strong relationships with the world's premier semiconductor manufacturers and their capital equipment suppliers have resulted in a number of important design wins that should be particularly beneficial when the industry rebounds. During 1998, we were pleased to see our semiconductor customers embrace our digital offerings. These digital products facilitate information sharing throughout the production process, allow for self-diagnosis, conserve space, and reduce wiring and cable costs. In addition, MKS's integrated subsystems, which combine multiple components into smaller, single-package, easier-to-install solutions, continued to gain acceptance with our customers.

In addition to semiconductor design wins, we continued to expand our reach into related markets where the pressure and flow of gases must be tightly controlled. We continued to devote resources to other thin-film related manufacturing applications such as flat panel display manufacturing, magnetic and optical storage media production, and optical fiber fabrication. It also is exciting to see that our offerings are delivering value in a broad array of other manufacturing applications, such as medical instrumentation sterilization, light bulb and gas laser production, architectural glass coating, and pharmaceutical, food and beverage freeze-drying processes.

Global Infrastructure

We believe that our ability to respond quickly and efficiently to our customers' needs is an advantage that continues to differentiate MKS from competitors. During the year, we made important investments to fortify our global infrastructure. We now have 22 sales and support facilities worldwide, including new offices in Singapore and Taiwan that were opened in 1998. These operations are complemented by 14 service centers and nine manufacturing facilities, which now include enhanced production capabilities in the United Kingdom. To ensure on-time shipments and the highest levels of product quality, we have embraced just-in-time and kanban inventory programs, as well as total quality management. In fact, all of our main manufacturing facilities in the U.S., U.K. and Germany are now ISO 9001 certified.

OUTLOOK

We believe that there are a number of trends that bode well for MKS because they all require tighter control of the manufacturing process in order to lower unit costs and raise productivity. In the semiconductor industry, companies are embracing new processes and materials in order to produce devices that offer faster speeds, more memory and greater functionality. Flat panel display manufacturers are striving to modify their fabrication techniques in order to produce offerings that deliver higher resolution. Magnetic and optical storage manufacturers are constantly focused on identifying ways to produce higher density storage capacity. Our ability to partner closely with our customers in these and other select industries is enabling these industry leaders to continuously enhance their manufacturing processes and sustain their competitive advantage.

Today, industry forecasters are decidedly more optimistic than they were at the same time last year. MKS's seasoned management team understands our customers and the cyclical environment in which they often operate. We have proven to be as adept at managing through the semiconductor industry's cyclical downturns as we have at capitalizing on its accelerated upswings. While industry experts differ about the speed of the recovery within the semiconductor capital equipment industry, our objective is to match or exceed the industry's growth.

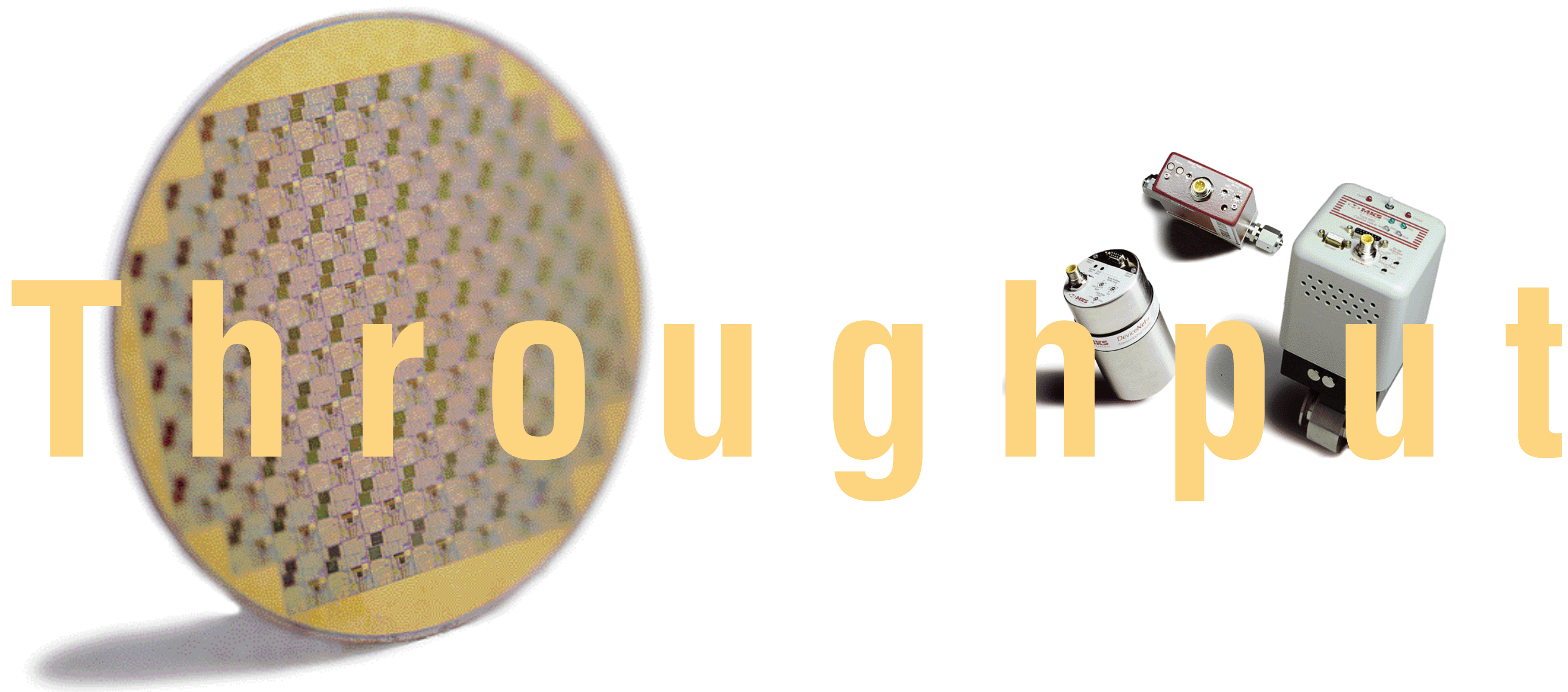
To achieve our objectives, we will continue to adhere to the strategy that has guided our success to date. We plan to provide our customers with the highest quality and broadest range of process-related instrumentation and components, as well as highly responsive, efficient support and service. In addition, we will identify and capitalize on opportunities to market our products in related fields. We also plan to further build our global infrastructure by enhancing our manufacturing capabilities. Just as important, our improved financial strength provides us with the resources to pursue acquisitions and other strategic initiatives that can further build our market leadership.

I am excited about MKS's future. As a newly public company, we are committed to generating the financial results and strategic accomplishments that will build long-term shareholder value. Our ability to handle the adverse market conditions over the past year is a testimony to the hard work, commitment and resiliency of the MKS team, and I thank them for their efforts. Every MKS professional is focused on working closely with our customers, suppliers and business partners to ensure total customer satisfaction. I look forward to sharing MKS's accomplishments with all of you throughout 1999 and beyond.

Sincerely,



John R. Bertucci
President, Chief Executive Officer and Chairman of the Board
March 31, 1999



Transforming a silicon wafer into integrated circuits requires hundreds of complex, automated steps within a controlled environment. Semiconductor manufacturers and their suppliers who provide advanced production equipment rely on MKS Instruments to help achieve the goal of reducing unit costs by increasing yield and throughput. MKS's products provide semiconductor customers with the sophisticated instrumentation and components required to rapidly, and yet precisely, control gas pressure, flow and composition in the process chamber.

“MKS Instruments is a market leader in vacuum and gas measurement, control and analysis products, offering the broadest range of instruments and components for advanced materials processing. The MKS name is widely respected across a diverse array of industries, from semiconductors and flat panel displays to freeze-dried pharmaceuticals and medical sterilization equipment.”



Paul Blackborow
Corporate Vice
President, Marketing

AROUND THE PROCESS, AROUND THE WORLD

“The pace of microchip technology change is such that the amount of data storage that a microchip can hold will double every 18 months.”

This prediction by Gordon Moore, co-founder of Intel Corporation, the world’s leading microchip manufacturer, is now known globally as Moore’s Law. And, the impact of this trend has dramatically changed all aspects of modern society, ushering in the information age.

Manufacturing microchip or semiconductor devices is a highly complex process – regardless of whether they are used to power the fastest multimedia PC or simply to provide the time of day. The microchip manufacturing process requires specialized, automated fabrication equipment for the hundreds of steps that often involve the accurate combination of multiple gases at varying pressures. Because the integrity of this production environment is fundamental for boosting yields, increasing throughput and extending manufacturing uptime, the world’s premier semiconductor manufacturers and their original equipment manufacturer (OEM) partners depend on MKS Instruments to help them monitor, control, analyze, combine and isolate the gases used in this highly complex manufacturing process.

For more than 20 years, MKS has enabled semiconductor equipment OEMs and semiconductor device manufacturers to improve their productivity. At the same time, MKS has leveraged its extensive experience to expand its reach into markets with production processes similar to semiconductor fabrication. Today, MKS’s products have become integral to flat panel display fabrication, magnetic and optical storage media production and fiber optic cable manufacturing, as well as in the vacuum freeze-drying of pharmaceuticals, foods and beverages. Regardless of where its offerings are applied, MKS Instruments has become an indispensable supplier, with the comprehensive range of products and the global

“In addition to providing a broad range of vacuum products, which ensure the integrity of the vacuum environment, our detailed understanding of our customers’ manufacturing processes allows MKS to provide specific subsystem solutions that further enhance productivity.”

William Stewart
Vice President and General
Manager, Vacuum Products



manufacturing, service and support necessary to address the exacting demands of its customers around the world.

AROUND THE PROCESS

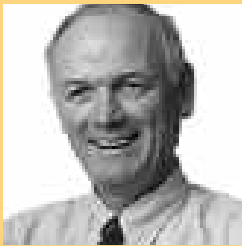
MKS Instruments’ broad range of equipment, controls and systems is primarily used in the front-end of the semiconductor manufacturing process, which involves the controlled application and removal of materials on silicon wafers in a process chamber. Specifically, MKS’s components are relied on in some of the most critical steps of the front-end process – chemical vapor and physical vapor deposition, etch and ion implantation. For successful semiconductor manufacturing, MKS’s products are designed to provide precise, repeatable, reliable performance in the harshest of manufacturing environments. MKS’s instrumentation and components measure and control pressures ranging from as low as one-trillionth of atmospheric pressure to as high as 200 times atmospheric pressure. At the same time, MKS’s instruments and monitors also ensure the accurate combination of several process gases at specified intervals.

Typically, in the front-end of the semiconductor manufacturing process, the first step involves evacuating the chamber to a base pressure, which can be accomplished using a vacuum pumping system. MKS vacuum gauges measure the pressure to ensure that the chamber has been properly evacuated. Then, the company’s flow measurement and control products, which include both thermal-based and pressure-based mass flow controllers, regulate the flow rates of multiple gases into the chamber. The company’s Baratron® capacitance manometers are used to accurately measure the total pressure, regardless of gas composition – a capability that is essential for precise pressure control of semiconductor processes that involve gas mixtures. With five distinct pressure product lines that range

Uptime



Today's laptop computers represent two substantial market opportunities for MKS. First, MKS's products are used in the production of the state-of-the-art multimedia computing chips that power these devices. Second, manufacturing high-resolution flat panel display screens requires a number of similar fabrication processes in which MKS's products are utilized. These manufacturers recognize that tight, repeatable control of the process chamber pressure and calibration of the gas flow rates can lead to substantially higher production uptime and process yields – keys to maximizing return on investment.



Joseph Maher
Vice President and General
Manager, Measurement and
Control Products

“Today, semiconductor and other thin-film capital equipment manufacturers are turning to MKS as they strive to consolidate supplier relationships and to enhance product quality. By combining multiple MKS components into single integrated solutions, which are easier to install and configure, our customers can enhance performance, increase productivity and reduce costs.”

from high accuracy digital output instruments to simple electronic switches, the MKS family of Baratron capacitance manometers has become the industry standard for pressure measurement.

The process pressure is typically controlled independently of the gas flow rate by an MKS automatic pressure control system which activates a valve downstream of the process chamber. Throughout these steps, MKS’s gas analysis systems scan for the presence of undesirable atmospheric gases, such as water vapor, or for variations in the desired ratios of the process gases. MKS also provides in situ calibration systems that independently verify the accuracy of gas flow devices and pressure gauges, enabling manufacturers to continually reduce costly downtime resulting from having to stop the process to manually check equipment.

Downstream of the automatic pressure control valve, the gases pass into the vacuum foreline system. The HPS™ range of vacuum components, valves and fittings from MKS provide the necessary integrity in this critical area. To ensure careful management of the undesirable by-products from the process chamber, MKS’s range of HPS heaters and traps minimize contaminants that could re-enter the chamber.

INTEGRATED SOLUTIONS; PRODUCT DEPTH

MKS Instruments’ comprehensive product portfolio is enabling the company to deliver integrated solutions that combine multiple components into single, smaller-sized subsystem offerings which are easier to install and configure. OEM customers are using the company’s integrated solutions to continue reducing the size and advancing the performance capabilities of their process tools. The depth of MKS’s product family enables the company to address a broad range of customer needs and provide a single source of measurement and control solutions

“Controlling the flow and pressure of multiple gases is fundamental to advanced thin-film manufacturing processes. That’s why we participate in industry consortiums, collaborate with academic institutions and work closely with our customers to create a technology road map that ensures that our products will continue improving yields, extending uptime and increasing throughput as the industry transitions to smaller circuit patterns, new materials and larger substrate sizes.”

John Sullivan
Executive Vice
President, Technology



for manufacturers seeking to improve efficiencies and control costs by consolidating supplier relationships.

SEMICONDUCTOR AND OTHER THIN-FILM
MANUFACTURING TRENDS

Driven by the demand for microchips with faster speed, smaller size, greater memory and other advanced features, continuous innovation has become the hallmark of the semiconductor industry. In order to address the needs of consumers and commercial customers alike, semiconductor companies constantly strive to identify new ways of modifying their manufacturing processes.

One of the most important trends in semiconductor manufacturing is the rapid transition to smaller geometries, from .35 to .25 to .18 micron line-widths, which reflect the workings of Moore’s Law. Another powerful trend in semiconductor manufacturing is the increasing size of the wafer itself to 300mm from 200mm. In fact, semiconductor manufacturers are already establishing pilot production lines and specifications for the use of 300mm wafers and the production of less than .18 micron circuit pattern devices. In addition, to improve functionality and computing speeds, semiconductor manufacturers are embracing new materials such as copper interconnects and low-k dielectrics, and advanced processes such as high-density plasma chemical vapor deposition and etch. MKS is poised to capitalize on these trends, all of which place greater emphasis on using state-of-the-art equipment and components to tightly control the manufacturing environment.

In other industries that rely on fabrication techniques and manufacturing requirements similar to the semiconductor industry, there also are a number of trends that bode well for MKS. In the fast-growing, multi-billion-dollar flat panel display industry, manufacturers are



The newest digital video discs, compact discs, hard disks and other magnetic and optical storage media have greater density, which provides consumers and business professionals with higher-quality images and sound, as well as increased storage capacity. To boost yields and improve the capabilities of their products, storage manufacturers and their OEM suppliers around the world are using MKS Instruments' components to accurately and precisely measure and control the gas pressures used in the production process. MKS is expanding its business in this market as the growing demand for higher density storage capacity leads to more complex manufacturing processes that incorporate tighter process controls.

“At MKS, we understand that our 4,000 global customers need local technical support and customer service. Consequently, we have established an expansive global infrastructure that consists of 22 direct sales and support offices, 14 service centers and nine manufacturing facilities. These operations are strategically located around the world in close proximity to our customers to ensure that our field engineers address their needs rapidly and efficiently.”



Leo Berlinghieri
Vice President, Customer
Support Operations

moving to embrace larger panel sizes, while also being challenged to produce displays with greater resolution and fewer defects. In the magnetic and optical storage media industries, which produce CD-ROMs, CDs, hard disks, and DVDs, there is a transition to higher density storage capacity. In the fiber optics industry, there is a growing demand for greater data transmission using optical fibers. As in the semiconductor industry, these powerful, industry-specific trends place increasing importance on the need for components and systems that reliably and accurately measure and control the gases and pressures used in their respective manufacturing process.

AROUND THE WORLD

Semiconductor and advanced thin-film manufacturing takes place virtually everywhere on the globe. With 22 direct sales and support offices, 14 service centers and nine manufacturing facilities strategically located around the world, MKS has built a strong infrastructure to properly support its base of 4,000 active customers worldwide. MKS’s unwavering commitment to total customer satisfaction has helped the company build highly successful customer relationships with some of the semiconductor industry’s largest and most successful companies such as Applied Materials, Lam Research, NEC, Novellus Systems and Tokyo Electron.

Regardless of location, semiconductor and other thin-film manufacturing is capital intensive. The installation of each new system represents a costly, strategic investment. For these companies to thrive, manufacturing downtime and less-than-optimum yields are unacceptable. Recognizing this, MKS has developed close working relationships with the device manufacturers themselves. MKS’s field engineers team with manufacturers to determine how to best improve

“MKS’s commitment to total customer satisfaction extends across our organization and is reinforced by a number of management and manufacturing processes, practices and philosophies. To maximize productivity and enhance efficiency, all of our major manufacturing facilities are ISO-9001 certified and have embraced total quality management. We also ensure reliable, consistent product delivery through just-in-time and kanban inventory programs, as well as strategic demand-based outsourcing initiatives.”

Gerald Colella
Corporate Vice President,
Business Operations

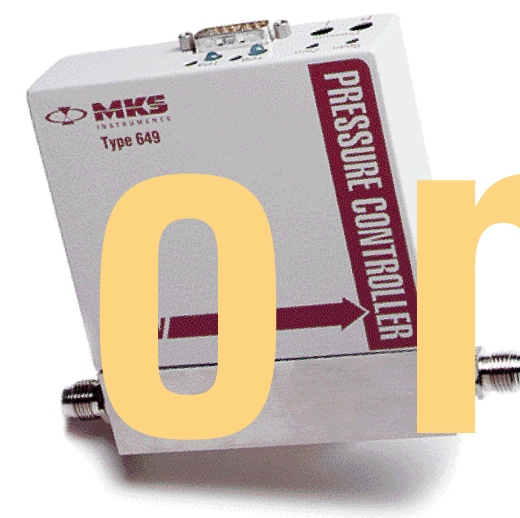


yields and reduce manufacturing downtime by enhancing the performance of existing systems.

Semiconductor equipment OEMs are constantly challenged by semiconductor device manufacturers to develop new systems that can improve productivity and device performance. Because controlling the vacuum and gas environment is critical in the semiconductor manufacturing process, MKS also collaborates closely with its semiconductor equipment OEM customers – from the initial design of next-generation fabrication equipment to its eventual installation in manufacturing plants worldwide. A high commitment to research and development allows MKS to continually develop products that incorporate the most advanced measurement and control technology, as well as effectively handle new materials such as copper and low-k dielectrics. MKS’s participation in SEMI/SEMATECH, a consortium of semiconductor equipment suppliers, and its partnerships with leading academic and research institutions ensure that the company will remain on the forefront of gas and vacuum technology. MKS also protects its investment in R&D; the company owns 49 U.S. patents with eight additional U.S. patent applications pending.

Across its global infrastructure, MKS has embraced a number of cutting-edge management and manufacturing practices to respond more effectively and efficiently to its customers, as well as provide the highest quality products in the industry. MKS relies on flexible, just-in-time and kanban inventory programs, as well as strategic manufacturing outsourcing, to ensure that its products are readily available and delivered on time to its customers around the world. The company constantly monitors the performance of its products in the field, using this analysis to continually improve its own manufacturing procedures. With an eye on manufacturing

Integration



The convergence of computing and communications continues to accelerate, made possible by the continual advancement of integrated circuits and the rapidly increasing bandwidth capabilities of telecommunications equipment. To assist its semiconductor and fiber optic cable customers in enhancing the performance of their products while also reducing manufacturing equipment size, MKS delivers integrated subsystems, which combine multiple components into smaller, single-package, higher performance solutions. MKS's integrated solutions, which are easier to install and configure, are adding substantial value by helping customers reduce costs and raise productivity to new levels.

“MKS Instruments was affected by a severe downturn in the semiconductor equipment industry in 1998. Despite lower sales, MKS maintained profitability throughout the year by managing our operations effectively and adjusting our cost structure prudently. As a result, we believe we are well positioned to generate growth when the semiconductor equipment industry rebounds.”



Ronald Weigner
Vice President and
Chief Financial Officer

excellence, MKS also has embraced total quality management. The company's major U.S. and European manufacturing facilities have received ISO 9001 certification – an internationally recognized standard for maintaining the highest levels of manufacturing quality.

MAKING A MEASURABLE DIFFERENCE

Advanced product manufacturers and their OEM equipment suppliers are constantly challenged by consumers and systems designers to produce new generations of increasingly fast, more complex, smaller-sized products that offer greater functionality and reduced power consumption at lower prices. With comprehensive product lines, MKS offers its customers in a range of industries, the reliable, accurate instrumentation and components needed to make a measurable difference in productivity and product performance. With a global infrastructure and an unwavering commitment to customer satisfaction, the company is ensuring that its customers increase yields, throughput and manufacturing uptime.

MKS's products are facilitating continued advancements in microchip technology, helping Moore's Law stand the test of time. While the company's products will not be seen nor used directly by consumers, the impact of MKS is highly visible in today's modern society through successive generations of electronic products and components that make life more entertaining, productive, convenient and enjoyable.

Review

To the Board of Directors and Stockholders of MKS Instruments, Inc.:

In our opinion, the accompanying consolidated balance sheets and related consolidated statements of income, stockholders’ equity and cash flows present fairly, in all material respects, the financial position of MKS Instruments, Inc. and its subsidiaries at December 31, 1997 and 1998 and the results of their operations and their cash flows for each of the three years in the period ended December 31, 1998, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Company’s management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

Boston, Massachusetts
January 22, 1999, except for the information
in the first and second paragraph of Note 13
as to which the date is January 28, 1999 and
February 24, 1999, respectively

PRICEWATERHOUSECOOPERS LLP

	December 31, 1997	December 31, 1998	
		Actual	Pro Forma
			(Note 2) (Unaudited)
ASSETS			
Current assets:			
Cash and cash equivalents	\$ 2,511	\$ 11,188	\$ 11,188
Marketable equity securities	614	538	538
Trade accounts receivable, net of allowance for doubtful accounts of \$610 and \$656 at December 31, 1997 and 1998, respectively	32,439	20,674	20,674
Inventories	29,963	24,464	24,464
Deferred tax asset	682	698	698
Other current assets	1,670	971	971
Total current assets	67,879	58,533	58,533
Property, plant and equipment, net	33,976	32,725	32,725
Other assets	4,681	4,974	4,974
Total assets	\$106,536	\$ 96,232	\$ 96,232
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current liabilities:			
Short-term borrowings	\$ 10,721	\$ 9,687	\$ 9,687
Current portion of long-term debt	2,070	2,058	2,058
Current portion of capital lease obligations	1,061	1,074	1,074
Accounts payable	7,433	3,677	3,677
Accrued compensation	7,501	3,985	3,985
Other accrued expenses	6,883	5,280	5,280
Income taxes payable	1,889	1,279	1,279
Distribution payable	—	—	35,926
Total current liabilities	37,558	27,040	62,966
Long-term debt	13,748	12,042	12,042
Long-term portion of capital lease obligations	1,876	1,744	1,744
Deferred tax liability	133	117	117
Other liabilities	373	463	463
Commitments and contingencies (Note 7)			
Stockholders' equity:			
Common Stock, Class A, no par value; 11,250,000 shares authorized, 7,766,910 issued and outstanding	40	40	40
Common Stock, Class B (non voting) no par value; 18,750,000 shares authorized; 10,286,255 and 10,286,257 shares issued and outstanding at December 31, 1997 and 1998, respectively	73	73	73
Additional paid-in capital	48	48	48
Retained earnings	51,443	52,479	16,553
Accumulated other comprehensive income	1,244	2,186	2,186
Total stockholders' equity	52,848	54,826	18,900
Total liabilities and stockholders' equity	\$106,536	\$ 96,232	\$ 96,232

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

CONSOLIDATED STATEMENTS OF INCOME			
(in thousands, except per share data)			
	Year Ended December 31,		
	1996	1997	1998
Net sales	\$170,862	\$188,080	\$139,763
Cost of sales	102,008	107,606	83,784
Gross profit	68,854	80,474	55,979
Research and development	14,195	14,673	12,137
Selling, general and administrative	37,191	41,838	34,707
Restructuring	1,400	—	—
Income from operations	16,068	23,963	9,135
Interest expense	2,378	2,132	1,483
Interest income	92	271	296
Other income (expense), net	(479)	166	187
Income before income taxes	13,303	22,268	8,135
Provision for income taxes	800	1,978	949
Net income	\$ 12,503	\$ 20,290	\$ 7,186
Historical net income per share:			
Basic	\$ 0.69	\$ 1.12	\$ 0.40
Diluted	\$ 0.69	\$ 1.10	\$ 0.38
24 Historical weighted average common shares outstanding:			
Basic	18,053	18,053	18,053
Diluted	18,053	18,388	18,720
Pro forma data (unaudited):			
Historical income before income taxes	\$ 13,303	\$ 22,268	\$ 8,135
Pro forma provision for income taxes assuming C corporation tax	5,055	8,462	3,091
Pro forma net income	\$ 8,248	\$ 13,806	\$ 5,044
Pro forma net income per share:			
Basic	\$ 0.46	\$ 0.76	\$ 0.24
Diluted	\$ 0.46	\$ 0.76	\$ 0.24
Pro forma weighted average common shares outstanding:			
Basic	18,053	18,053	20,616
Diluted	18,053	18,262	21,101

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

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY									
For the years ended December 31, 1996, 1997 and 1998									
(in thousands, except share data)									
	Common Stock				Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income	Comprehensive Income	Total Stockholders' Equity
	Class A		Class B						
	Shares	Amount	Shares	Amount					
Balance at									
December 31, 1995	7,766,910	\$40	10,286,255	\$73	\$48	\$ 45,550	\$2,681		\$ 48,392
Distributions									
to stockholders						(14,500)			(14,500)
Comprehensive income:									
Net income						12,503		\$ 12,503	12,503
Other comprehensive									
income:									
Foreign currency									
translation adjustment							(766)	(766)	(766)
Unrealized loss									
on investments							(131)	(131)	(131)
Comprehensive									
income								\$ 11,606	
Balance at									
December 31, 1996	7,766,910	40	10,286,255	73	48	43,553	1,784		45,498
Distributions									
to stockholders						(12,400)			(12,400)
Comprehensive income:									
Net income						20,290		20,290	20,290
Other comprehensive									
income:									
Foreign currency									
translation adjustment							(786)	(786)	(786)
Unrealized gain									
on investments							246	246	246
Comprehensive income								\$ 19,750	
Balance at									
December 31, 1997	7,766,910	40	10,286,255	73	48	51,443	1,244		52,848
Distributions									
to stockholders						(6,150)			(6,150)
Issuance of									
common stock			2						
Comprehensive income:									
Net income						7,186		7,186	7,186
Other comprehensive									
income:									
Foreign currency									
translation adjustment							992	992	992
Unrealized loss									
on investments							(50)	(50)	(50)
Comprehensive income								\$ 8,128	
Balance at									
December 31, 1998	7,766,910	\$40	10,286,257	\$73	\$48	\$ 52,479	\$ 2,186		\$ 54,826

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

CONSOLIDATED STATEMENTS OF CASH FLOWS			
(in thousands)			
	Year Ended December 31,		
	1996	1997	1998
Cash flows from operating activities:			
Net income	\$ 12,503	\$ 20,290	\$ 7,186
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization of property, plant and equipment	5,920	5,712	6,242
Loss on disposal of property, plant and equipment	—	552	48
Deferred taxes	(277)	(145)	(32)
Provision for doubtful accounts	(20)	258	253
Forward exchange contract loss (gain) realized	302	132	(1,211)
Stock option compensation	—	95	—
Changes in operating assets and liabilities:			
(Increase) decrease in trade accounts receivable	6,119	(12,509)	12,908
(Increase) decrease in inventories	4,145	(5,930)	6,479
(Increase) decrease in other current assets	3,239	(1,261)	554
Increase (decrease) in accrued compensation	(220)	2,386	(3,516)
Increase (decrease) in other accrued expenses	(1,520)	3,312	(1,602)
Increase (decrease) in accounts payable	(4,221)	2,638	(3,682)
Increase (decrease) in income taxes payable	331	1,283	(647)
Net cash provided by operating activities	26,301	16,813	22,980
Cash flows from investing activities:			
Purchases of property, plant and equipment	(9,417)	(3,269)	(3,137)
Proceeds from sale of property, plant and equipment	—	203	60
Increase in other assets	(443)	(123)	(270)
Cash received (used) to settle forward exchange contracts	(302)	(132)	1,211
Net cash used in investing activities	(10,162)	(3,321)	(2,136)
Cash flows from financing activities:			
Net (payments) borrowings on demand notes payable	224	(1,875)	—
Proceeds from short-term borrowings	11,025	24,110	15,242
Payments on short-term borrowings	(9,628)	(22,938)	(17,569)
Proceeds from long-term debt	400	—	—
Principal payments on long-term debt	(2,093)	(2,217)	(2,057)
Cash distributions to stockholders	(14,500)	(12,400)	(6,150)
Principal payments under capital lease obligations	(982)	(870)	(1,257)
Net cash used in financing activities	(15,554)	(16,190)	(11,791)
Effect of exchange rate changes on cash and cash equivalents	(420)	1,394	(376)
Increase (decrease) in cash and cash equivalents	165	(1,304)	8,677
Cash and cash equivalents at beginning of period	3,650	3,815	2,511
Cash and cash equivalents at end of period	\$ 3,815	\$ 2,511	\$ 11,188
Supplemental disclosure of cash flow information:			
Cash paid during the period for:			
Interest	\$ 2,363	\$ 2,030	\$ 1,526
Income taxes	\$ 770	\$ 1,078	\$ 1,608
Noncash transactions during the period:			
Equipment acquired under capital leases	\$ 2,074	\$ 145	\$ 1,138

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(tables in thousands, except per share data)

1. DESCRIPTION OF BUSINESS

MKS Instruments, Inc. (the “Company”) is a worldwide developer, manufacturer, and supplier of instruments and components that are used to measure, control and analyze gases in semiconductor manufacturing and similar industrial manufacturing processes. The Company’s products include pressure and flow measurement and control instruments; vacuum gauges, valves and components; and gas analysis instruments. The Company is subject to risks common to companies in the semiconductor industry including, but not limited to, the highly cyclical nature of the semi-conductor industry leading to recurring periods of over supply, development by the Company or its competitors of new technological innovations, dependence on key personnel and the protection of proprietary technology.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

BASIS OF PRESENTATION The consolidated financial statements include the accounts of the Company and its subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation. The Company has reflected the approximately 77.5% owned foreign subsidiaries as wholly-owned subsidiaries pursuant to common control accounting. Upon the closing of this offering for which these financial statements are being prepared, the shares of the foreign subsidiaries owned directly by the ultimate stockholders will be contributed to the Company.

PRO FORMA BALANCE SHEET PRESENTATION (UNAUDITED) The Company intends to distribute the balance of its accumulated and undistributed S corporation earnings from the proceeds of this offering for which this registration statement is being prepared. The unaudited pro forma balance sheet has been prepared assuming an estimated \$35,926,000 distribution was payable as of December 31, 1998. The remaining balance in retained earnings represents accumulated earnings prior to the Company converting from a C corporation to an S corporation in 1987, accumulated income in overseas subsidiaries and differences between book and tax accumulated income.

HISTORICAL AND PRO FORMA (UNAUDITED) NET INCOME PER SHARE The Company computes basic and diluted earnings per share in accordance with Statement of Financial Accounting Standards No. 128 (“SFAS 128”) “Earnings per Share.” SFAS 128 requires both basic earnings per share, which is based on the weighted average number of common shares outstanding, and diluted earnings per share, which is based on the weighted average number of common shares outstanding and all dilutive potential common equivalent shares outstanding. The dilutive effect of options is determined under the treasury stock method using the average market price for the period. Common equivalent shares are included in the per share calculations where the effect of their inclusion would be dilutive.

Historical net income per share is not meaningful based upon the Company’s planned conversion from an S corporation to a C corporation upon the closing of this offering for which these financial statements are being prepared. Historical net income has been adjusted for the pro forma provision for income taxes calculated assuming the Company was subject to income taxation as a C corporation, at a pro forma tax rate of 38.0%. In accordance with a regulation of the Securities and Exchange Commission, pro forma net income per share has been presented for the year ended December 31, 1998 to reflect the effect of the assumed issuance of 2,562,596 shares of common stock of the Company necessary to be sold at the mid-point of the estimated initial public offering price in order to fund the intended distribution of the accumulated and undistributed S corporation earnings as of January 1, 1998.

The following is a reconciliation of basic to diluted pro forma and historical net income per share:

	For the Year Ended December 31,					
	1996		1997		1998	
	Pro Forma	Historical	Pro Forma	Historical	Pro Forma	Historical
Net income	\$ 8,248	\$12,503	\$13,806	\$20,290	\$ 5,044	\$ 7,186
Shares used in net income per common share – basic	18,053	18,053	18,053	18,053	20,616	18,053
Effect of dilutive securities:						
Employee and director stock options	—	—	209	335	485	667
Shares used net income per common share – diluted	18,053	18,053	18,262	18,388	21,101	18,720
Net income per common share – basic	\$ 0.46	\$ 0.69	\$ 0.76	\$ 1.12	\$ 0.24	\$ 0.40
Net income per common share – diluted	\$ 0.46	\$ 0.69	\$ 0.76	\$ 1.10	\$ 0.24	\$ 0.38

FOREIGN EXCHANGE The functional currency of the Company’s foreign subsidiaries is the applicable local currency. For those subsidiaries, assets and liabilities are translated to U.S. dollars at year-end exchange rates. Income and expense accounts are translated at the average exchange rates prevailing for the year. The resulting translation adjustments are included in accumulated other comprehensive income in consolidated stockholders’ equity.

REVENUE RECOGNITION The Company recognizes revenue upon shipment. The Company accrues for anticipated returns and warranty costs upon shipment.

CASH AND CASH EQUIVALENTS All highly liquid investments with an original maturity of three months or less at the date of purchase are considered to be cash equivalents. Cash equivalents consist of money market instruments.

INVESTMENTS The appropriate classification of investments in debt and equity securities is determined at the time of purchase. Debt securities that the Company has both the intent and ability to hold to maturity are carried at amortized cost. Debt securities that the Company does not have the intent and ability to hold to maturity or equity securities are classified either as “available-for-sale” or as “trading” and are carried at fair value. Marketable equity securities are carried at fair value and classified either as available-for-sale or trading. Unrealized gains and losses on securities classified as available-for-sale are included in accumulated other comprehensive income in consolidated stockholders’ equity. Unrealized gains and losses on securities classified as trading are reported in earnings.

INVENTORIES Inventories are stated at the lower of cost or market. Cost is determined on the first-in, first-out method.

28 **PROPERTY, PLANT AND EQUIPMENT** Property, plant and equipment are stated at cost. Equipment acquired under capital leases is recorded at the present value of the minimum lease payments required during the lease period. Expenditures for major renewals and betterments that extend the useful lives of property, plant and equipment are capitalized. Expenditures for maintenance and repairs are charged to expense as incurred. When assets are sold or otherwise disposed of, the cost and related accumulated depreciation are eliminated from the accounts and any resulting gain or loss is recognized in earnings.

Depreciation is provided on the straight-line method over the estimated useful lives of 20 years for buildings and three to five years for machinery and equipment. Leasehold improvements are amortized over the shorter of the lease term or the estimated useful life of the lease.

RESEARCH AND DEVELOPMENT Research and development costs are expensed as incurred.

NEW ACCOUNTING PRONOUNCEMENTS In March 1998, the American Institute of Certified Public Accountants issued Statement of Position (SOP) 98-1, “Accounting for the Costs of Software Developed or Obtained for Internal Use” which provides guidance on the accounting for the costs of software developed or obtained for internal use. SOP 98-1 is effective for fiscal years beginning after December 15, 1998. The Company does not expect the SOP 98-1 to have a material impact on its financial position or results of operations.

In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards (SFAS) No. 133, “Accounting for Derivative Instruments and Hedging Activities.” SFAS No. 133 requires that all derivative instruments be recorded on the balance sheet at their fair value. Changes in the fair value of derivatives are recorded each period in current earnings or other comprehensive income, depending on whether a derivative is designated as part of a hedge transaction and, if it is, the type of hedge transaction. The statement is effective for all fiscal quarters of all fiscal years beginning after June 15, 1999. The Company has not yet determined the impact that the adoption SFAS No. 133 will have on its financial position or results of operations.

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

RECLASSIFICATION OF PRIOR YEAR BALANCES Certain reclassifications have been made to prior years’ consolidated financial statements to conform to the current presentation.

3. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

FOREIGN EXCHANGE RISK MANAGEMENT The Company uses forward exchange contracts and local currency purchased options in an effort to reduce its exposure to currency fluctuations on future U.S. dollar cash flows derived from foreign currency denominated sales associated with the intercompany purchases of inventory. The Company has entered into forward exchange contracts and local currency purchased options to hedge a portion of its

probable anticipated, but not firmly committed transactions. The anticipated transactions whose risks are being hedged are the intercompany purchases of inventory by the foreign subsidiaries from the U.S. parent for resale in their local currency. The time period of the anticipated transactions that are hedged generally approximate one year. The Company has also used forward exchange contracts to hedge firm commitments. Market value gains and losses on forward exchange contracts are recognized immediately in earnings unless a firm commitment exists. Market value gains and premiums on local currency purchased options on probable anticipated transactions and market value gains and losses on forward exchange contracts hedging firm commitments are recognized when the hedged transaction occurs. These contracts, which relate primarily to Japanese and European currencies generally have terms of twelve months or less. The Company does not hold or issue derivative financial instruments for trading purposes.

Realized and unrealized gains and losses on forward exchange contracts and local currency purchased options that qualify for hedge accounting are recognized in earnings in the same period as the underlying hedged item. Realized and unrealized gains and losses on forward exchange contracts and local currency purchased option contracts that do not qualify for hedge accounting are recognized immediately in earnings. Forward exchange contracts receive hedge accounting on firmly committed transactions when they are designated as a hedge of the designated currency exposure and are effective in minimizing such exposure. Options receive hedge accounting on probable anticipated transactions when they are designated as a hedge of the currency exposure and are effective in minimizing such exposure. The cash flows resulting from forward exchange contracts and local currency purchased options that qualify for hedge accounting are classified in the statement of cash flows as part of cash flows from operating activities. Cash flows resulting from forward exchange contracts and local currency purchased options that do not qualify for hedge accounting are classified in the statement of cash flows as investing activities.

Forward exchange contracts with notional amounts totaling none, \$9,800,000, and \$8,000,000 to exchange foreign currencies for U.S. dollars, were outstanding at December 31, 1996, 1997, and 1998, respectively. Of such forward exchange contracts \$6,900,000 and \$7,800,000 to exchange Japanese yen for U.S. dollars, were outstanding at December 31, 1997 and 1998, respectively. The forward exchange contracts with notional amounts outstanding at December 31, 1998 totaling \$8,000,000 do not qualify for hedge accounting and accordingly are marked to market and recognized immediately in earnings. Local currency purchased options with notional amounts totaling \$3,722,000, \$12,738,000, and \$10,221,000 to exchange foreign currencies for U.S. dollars were outstanding at December 31, 1996, 1997, and 1998, respectively.

Foreign exchange losses of \$479,000, foreign exchange gains of \$1,166,000 and foreign exchange losses of \$168,000 on forward exchange contracts that did not qualify for hedge accounting were recognized in earnings during 1996, 1997 and 1998, respectively, and are classified in Other income (expense), net. Gains on forward exchange contracts that qualify for hedge accounting of \$978,000 were deferred and classified in other accrued expenses at December 31, 1996. Gains on local currency purchased options deferred at December 31, 1996 that qualify for hedge accounting of \$200,000 were deferred in other accrued expenses. Gains on forward exchange contracts and local currency purchased options that qualify for hedge accounting are classified in cost of goods sold and totaled \$2,476,000, \$1,178,000, and \$310,000 for the years ended December 31, 1996, 1997, and 1998, respectively.

The fair value of forward exchange contracts at December 31, 1998, determined by applying period end currency exchange rates to the notional contract amounts, amounted to a loss of \$349,000. The fair values of local currency purchased options at December 31, 1997 and 1998 which were obtained through dealer quotes were immaterial.

The Company recorded a foreign exchange translation loss on intercompany payables of \$1,000,000 and a foreign exchange translation gain on intercompany payables of \$1,000,000 in Other income (expense), net in 1997 and 1998, respectively. Foreign exchange translation gains and losses from unhedged intercompany balances were not material in 1996.

The market risk exposure from forward exchange contracts is assessed in light of the underlying currency exposures and is controlled by the initiation of additional or offsetting foreign currency contracts. The market risk exposure from options is limited to the cost of such investments. Credit risk exposure from forward exchange contracts and local currency purchased options are minimized as these instruments are contracted with a major financial institution. The Company monitors the credit worthiness of this financial institution and full performance is anticipated.

INTEREST RATE RISK MANAGEMENT The Company utilizes an interest rate swap to fix the interest rate on certain variable rate term loans in order to minimize the effect of changes in interest rates on earnings. In 1998, the Company entered into a four-year interest rate swap agreement on a declining notional amount basis which coincides with the scheduled principal payments with a major financial institution for the notional amount of \$10,528,000 equal to the term loans described in Note 6. Under the agreement, the Company pays a fixed rate of 5.85% on the notional amount and receives LIBOR. The interest differential payable or accruable on the swap agreement is recognized on an accrual basis as an adjustment to interest expense. The criteria used to apply hedge accounting for this interest rate swap is based upon management designating the swap as a hedge against the variable rate debt combined with the terms of the swap matching the underlying debt including the notional amount, the timing of the interest reset dates, the indices used and the paydates. At December 31, 1998, the fair value of this interest rate swap, which represents the

amount the Company would receive or pay to terminate the agreement, is a net payable of \$151,000, based on dealer quotes. The variable rate received on the swap at December 31, 1998 was 5.5%.

The market risk exposure from the interest rate swap is assessed in light of the underlying interest rate exposures. Credit risk exposure from the swap is minimized as the agreement is with a major financial institution. The Company monitors the credit worthiness of this financial institution and full performance is anticipated.

CONCENTRATIONS OF CREDIT RISK The Company’s significant concentrations of credit risk consist principally of cash and cash equivalents and trade accounts receivable. The Company maintains cash and cash equivalents with financial institutions including the bank it has borrowings with. Concentrations of credit risk with respect to trade accounts receivable are limited due to the large number of geographically dispersed customers. Credit is extended for all customers based on financial condition and collateral is not required.

FAIR VALUE OF FINANCIAL INSTRUMENTS The fair value of the term loans, including the current portion, approximates its carrying value given its variable rate interest provisions. The fair value of mortgage notes is based on borrowing rates for similar instruments and approximates its carrying value. For all other balance sheet financial instruments, the carrying amount approximates fair value because of the short period to maturity of these instruments.

4. INVENTORIES

Inventories consist of the following:

	December 31,	
	1997	1998
Raw material	\$ 9,981	\$ 7,544
Work in process	7,241	5,718
Finished goods	12,741	11,202
	<u>\$29,963</u>	<u>\$24,464</u>

5. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consist of the following:

	December 31,	
	1997	1998
Land	\$ 8,350	\$ 8,834
Buildings	26,241	26,020
Machinery and equipment	24,861	27,394
Furniture and fixtures	9,697	10,578
Leasehold improvements	882	1,814
	<u>70,031</u>	<u>74,640</u>
	36,055	41,915
	<u>\$33,976</u>	<u>\$ 32,725</u>

6. DEBT

CREDIT AGREEMENTS AND SHORT-TERM BORROWINGS In February 1996, the Company entered into loan agreements with two banks, which provide access to a revolving credit facility. These agreements have since been amended. The revolving credit facility, as amended, provides for uncollateralized borrowings up to \$30,000,000, which expires on December 31, 1999. Interest on borrowings is payable quarterly at either the banks’ base rate or the LIBOR Rate, as defined in the agreement, at the Company’s option. At December 31, 1997 and 1998, the Company had no borrowings under this revolving credit facility.

Additionally, certain of the Company’s foreign subsidiaries have lines of credit and short-term borrowing arrangements with various financial institutions which provide for aggregate borrowings as of December 31, 1998 of up to \$15,003,000, which generally expire and are renewed at six month intervals. At December 31, 1997 and 1998, total borrowings outstanding under these arrangements were \$10,721,000, and \$9,687,000, respectively, at interest rates ranging from 1.3% to 1.6%, and 1.3% to 1.7%, respectively. Foreign short-term borrowings are generally collateralized by certain trade accounts receivable and are guaranteed by a domestic bank.

LONG-TERM DEBT

Long-term debt consists of the following:

	December 31,	
	1997	1998
Term loans	\$12,194	\$10,528
Mortgage notes	3,624	3,572
Total long-term debt	15,818	14,100
Less: current portion	2,070	2,058
Long-term debt less current portion	<u>\$13,748</u>	<u>\$12,042</u>

On November 1, 1993, the Company entered into a term loan agreement with a bank, which provided for borrowings of \$10,000,000. Principal payments are payable in equal monthly installments of \$56,000 through October 1, 2000, with the remaining principal payment due on November 1, 2000. The loan is collateralized by certain land, buildings, and equipment. Interest is payable monthly at either the bank’s base rate, at a rate based on the long-term funds rate, or at the LIBOR Rate, as defined in the agreement, at the Company’s option.

On October 31, 1995, the Company also entered into a term loan agreement with the same bank, which provided additional uncollateralized borrowings of \$7,000,000. Principal payments are payable in equal monthly installments of \$83,000 through June 1, 2002, with the remaining principal payment due on June 30, 2002. Interest is payable monthly at either the bank’s base rate or at the LIBOR Rate, as defined in the agreement, at the Company’s option.

At December 31, 1997 and 1998, the interest rates in effect for the term loan borrowings were 6.975% and 7.131%, respectively.

The terms of the revolving credit facility and term loan agreements, as amended, contain, among other provisions, requirements for maintaining certain levels of tangible net worth and other financial ratios. The agreement also contains restrictions with respect to acquisitions. Under the most restrictive covenant, the operating cash flow to debt service ratio for a fiscal quarter shall not be less than 1.25 to 1.0. In the event of default of these covenants or restrictions, any obligation then outstanding under the loan agreement shall become payable upon demand by the bank. See Note 13 for subsequent event.

The Company has loans outstanding from various foreign banks in the form of mortgage notes at interest rates ranging from 2.0% to 6.2%. Principal and interest are payable in monthly installments through 2010. The loans are collateralized by mortgages on certain of the Company’s foreign properties.

Aggregate maturities of long-term debt over the next five years are as follows:

Year ending December 31,	Aggregate Maturities
1999	\$ 2,058
2000	7,343
2001	1,405
2002	1,329
2003	422
Thereafter	<u>1,543</u>
	<u>\$14,100</u>

7. LEASE COMMITMENTS

The Company leases certain of its facilities and machinery and equipment under capital and operating leases expiring in various years through 2002 and thereafter. Generally, the facility leases require the Company to pay maintenance, insurance and real estate taxes. Rental expense under operating leases totaled \$2,487,000, \$2,478,000, and \$2,388,000 for the years ended December 31, 1996, 1997, and 1998, respectively.

Minimum lease payments under operating and capital leases are as follows:

Year ending December 31,	Operating Leases		Capital
	Real Estate	Equipment	Leases Equipment
1999	\$1,484	\$ 437	\$1,202
2000	882	251	974
2001	660	130	537
2002	153	36	333
2003	84	13	116
Thereafter	51	42	—
Total minimum lease payments	\$ 3,314	\$909	\$ 3,162
Less: amounts representing interest			344
Present value of minimum lease payments			2,818
Less: current portion			1,074
Long-term portion			\$1,744

8. STOCKHOLDERS’ EQUITY

COMMON STOCK The Company has two classes of common stock. Stockholders of Class A common stock are entitled to voting rights with one vote for each share of common stock. Stockholders of Class B common stock are not entitled to voting rights.

Upon the closing of this offering for which this Registration Statement is being prepared each outstanding share of Class A and Class B common stock of the Company will be converted into an aggregate of 18,053,167 shares of common stock.

STOCK OPTION PLANS On January 9, 1998, the stockholders of the Company approved the following: (1) an increase in the number of shares that may be granted under the 1995 Stock Incentive Plan to 3,750,000 shares of common stock; (2) the adoption of the 1997 Director Stock Option Plan pursuant to which options may be granted to purchase up to an aggregate of 300,000 shares of common stock; (3) the adoption of the 1997 Employee Stock Purchase Plan pursuant to which the Company may issue up to an aggregate of 450,000 shares of common stock; and (4) that 3,750,000 shares, 300,000 shares, and 450,000 shares of common stock be reserved for issuance under the 1995 Stock Incentive Plan, the 1997 Director Stock Option Plan, and the 1997 Employee Stock Purchase Plan, respectively.

The Company grants options to employees under the 1995 Stock Incentive Plan (the “Plan”) and to directors under the 1996 Director Stock Option Plan (the “Director Plan”).

At December 31, 1998 options to purchase 1,651,793 shares of the Company’s common stock were reserved for issuance under the Plan. At December 31, 1998, under the Director Plan, options to purchase 28,932 shares of common stock were reserved for issuance. Stock options are granted at 100% of the fair value of the Company’s common stock as determined by the Board of Directors on the date of grant. In reaching the determination of fair value at the time of each grant, the Board of Directors considered a range of factors, including the Company’s current financial position, its recent revenues, results of operations and cash flows, its assessment of the Company’s competitive position in its markets and prospects for the future, the status of the Company’s product development and marketing efforts, current valuations for comparable companies and the illiquidity of an investment in the Company’s common stock. Generally, stock options under the Plan vest 20% after one year and 5% per quarter thereafter, and expire 10 years after the grant date. Under the Director Plan, the options granted in 1996 vest over three years and options granted in 1997 and later vest at the earlier of (1) the next annual meeting, (2) 13 months from date of grant or (3) the effective date of an acquisition as defined in the Director Plan.

The following table presents the activity for options under the Plan:

	Year Ended December 31, 1996		Year Ended December 31, 1997		Year Ended December 31, 1998	
	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price
Outstanding – beginning of period	608,270	\$11.06	810,442	\$4.43	1,564,449	\$4.50
Granted	810,442	4.43	785,657	4.57	629,969	6.80
Exercised	—	—	—	—	(2)	4.43
Forfeited or Expired	(608,270)	11.06	(31,650)	4.43	(96,209)	4.43
Outstanding – end of period	810,442	\$ 4.43	1,564,449	\$4.50	2,098,207	\$ 5.20
Exercisable at end of period	114,782	\$ 4.43	476,451	\$4.43	778,473	\$4.46

At December 31, 1998, Plan options included 1,436,588, 566,669, and 94,950 shares outstanding at exercise prices of \$4.43, \$6.67, and \$8.00 per share. The weighted average remaining contractual life of these options was 8.2 years.

During 1996, 27,128 options were granted at an exercise price of \$4.43 per share under the Director Plan and were outstanding at December 31, 1996. Of these options, 4,524 were exercisable at December 31, 1996. During 1997, options for 3,620 shares were granted under the Director Plan at an exercise price of \$4.43 per share. Of these options, 30,748 were outstanding with 13,564 exercisable at the \$4.43 per share price at December 31, 1997. During 1998, options for 3,620 shares were granted under the Director Plan at an exercise price of \$8.00 per share. Of these options, 34,368 were outstanding with 26,228 exercisable at the \$4.43 per share price at December 31, 1998.

The Company has adopted the disclosure-only provisions of Statement of Financial Accounting Standards No. 123 (SFAS No. 123), “Accounting for Stock-Based Compensation.” The Company has chosen to continue to account for stock-based compensation using the intrinsic value method prescribed in Accounting Principles Board Opinion No. 25, “Accounting for Stock Issued to Employees” and related interpretations. Accordingly, compensation cost for stock options is measured as the excess, if any, of the fair value of the Company’s stock at the date of grant over the amount an employee must pay to acquire the stock.

The disclosures required under SFAS No. 123 have been omitted as they are not meaningful based upon the Company’s planned conversion from an S corporation to a C corporation upon the closing of this offering for which these financial statements are being prepared. Had the fair value based method prescribed in SFAS No. 123 been used to account for stock-based compensation cost, there would have been no change in pro forma net income and pro forma earnings per share from that reported based on the following assumptions: dividend yield of 8%, risk free interest rate of 5.44% and an expected life of 8 years.

9. INCOME TAXES

The Company has elected to be taxed as an S corporation for federal and certain states income tax purposes and, as a result, is not subject to Federal taxation but is subject to state taxation on income in certain states. The stockholders are liable for individual Federal and certain state income taxes on their allocated portions of the Company’s taxable income.

The components of income before income taxes and the historical related provision for income taxes consist of the following:

	Year Ended December 31,		
	1996	1997	1998
Income before income taxes:			
United States	\$11,953	\$ 21,858	\$6,169
Foreign	1,350	410	1,966
	13,303	22,268	8,135
Current taxes:			
State	285	1,331	197
Foreign	792	792	784
	1,077	2,123	981
Deferred taxes:			
State	(156)	(72)	(39)
Foreign	(121)	(73)	7
	(277)	(145)	(32)
Provision for income taxes	\$ 800	\$ 1,978	\$ 949

As the Company is not subject to Federal income taxes, a reconciliation of the effective tax rate to the Federal statutory rate is not meaningful.

At December 31, 1996, 1997, and 1998 the components of the deferred tax asset and deferred tax liability were as follows:

	December 31,		
	1996	1997	1998
Deferred tax assets (liabilities):			
Inventories	\$ 234	\$344	\$265
Intercompany profits	160	214	152
Compensation	72	77	127
Investment booked under the equity method	(28)	(41)	(59)
Other	(34)	(45)	96
Total	\$404	\$549	\$ 581

10. EMPLOYEE BENEFIT PLANS

The Company has a 401(k) profit-sharing plan for U.S. employees meeting certain requirements in which eligible employees may contribute from 1% up to 12% of their compensation. The Company, at its discretion, may provide a matching contribution which will generally match up to the first 2% of each participant’s compensation, plus 25% of the next 4% of compensation. At the discretion of the Board of Directors, the Company may also make additional contributions for the benefit of all eligible employees. The Company’s contributions are generally paid annually, and were \$2,170,000 and \$2,500,000 for the years ended December 31, 1996 and 1997. Approximately \$1,400,000 has been accrued as the estimated Company contribution for the year ended December 31, 1998 and is included in accrued compensation.

The Company maintains a bonus plan which provides cash awards to key employees, at the discretion of the Compensation Committee of the Board of Directors, based upon operating results and employee performance. Bonus expense to key employees was none, \$1,425,000, and none for the years ended December 31, 1996, 1997, and 1998, respectively.

11. RESTRUCTURING

In 1996, the Company recorded a restructuring charge of \$1,400,000, primarily related to reduction of personnel and the closure of facilities in Phoenix, AZ and San Jose, CA. These charges include \$425,000 of severance pay, \$710,000 of lease commitments, and \$265,000 for the write-off of leasehold improvements. The facilities closure concluded during 1997. The remaining balance of approximately \$126,000 for lease commitments is included in Other accrued expenses in the accompanying balance sheet at December 31, 1998.

12. GEOGRAPHIC FINANCIAL INFORMATION AND SIGNIFICANT CUSTOMER

See Note 1 for a brief description of the Company’s business. The Company is organized around two similar product lines domestically and by geographic locations internationally and has three reportable segments: North America, Far East, and Europe. Net sales to unaffiliated customers are based on the location in which the sale originated. Transfers between geographic areas are at negotiated transfer prices and have been eliminated from consolidated net sales. Income from operations consists of total net sales less operating expenses and does not include either interest income, interest expense or income taxes. The Company had one customer comprising 15%, 22% and 16% of net sales for the years ended December 31, 1996, 1997, and 1998, respectively. This data is presented in accordance with SFAS 131, “Disclosures About Segments of an Enterprise and Related Information,” which the Company has retroactively adopted for all periods presented.

Year Ended December 31, 1998	North America	Far East	Europe	Total
Net sales to unaffiliated customers	\$ 95,607	\$23,902	\$20,254	\$ 139,763
Intersegment net sales	26,657	290	1,015	27,962
Depreciation and amortization	5,627	210	405	6,242
Income from operations	6,319	1,298	1,518	9,135
Segment assets	65,560	20,768	9,904	96,232
Long-lived assets	28,960	5,655	3,084	37,699
Capital expenditures	2,635	179	323	3,137

Year Ended December 31, 1997				
Net sales to unaffiliated customers	\$138,186	\$ 31,559	\$ 18,335	\$188,080
Intersegment net sales	35,429	225	749	36,403
Depreciation and amortization	5,096	259	357	5,712
Income from operations	22,847	886	230	23,963
Segment assets	77,302	19,906	9,328	106,536
Long-lived assets	30,738	4,904	3,015	38,657
Capital expenditures	2,899	128	242	3,269

Year Ended December 31, 1996				
Net sales to unaffiliated customers	\$121,061	\$31,066	\$ 18,735	\$170,862
Intersegment net sales	34,100	199	1,426	35,725
Depreciation and amortization	5,145	388	387	5,920
Income from operations	14,534	653	881	16,068
Segment assets	66,593	18,524	9,883	95,000
Long-lived assets	33,402	5,554	3,551	42,507
Capital expenditures	8,332	208	877	9,417

Included in North America are the United States and Canada. Net sales to unaffiliated customers from the United States were \$119,423,000, \$136,653,000 and \$94,449,000 for the years ended December 31, 1996, 1997 and 1998, respectively. Long-lived assets within the United States amounted to \$33,315,000, \$30,667,000 and \$28,902,000 at December 31, 1996, 1997, and 1998, respectively.

Included in the Far East are Japan, Korea and Singapore. Included in Europe are Germany, France and the United Kingdom. Net sales to unaffiliated customers from Japan were \$28,242,000, \$28,184,000 and \$21,153,000 for the years ended December 31, 1996, 1997 and 1998, respectively. Long-lived assets within Japan amounted to \$5,141,000, \$4,792,000 and \$5,431,000 at December 31, 1996, 1997 and 1998, respectively.

13. SUBSEQUENT EVENTS

On January 28, 1999, the Company amended its revolving credit facility and its term loan agreements described in Note 6. The amendments include revised quarterly cash flow to debt service ratios. The most restrictive covenant is the cash flow to debt service ratio of 1.25 to 1.0 in the fourth quarter of 1999 and thereafter.

On February 24, 1999 the Company effected a 3-for-2 stock split, in the form of a stock dividend of its common stock and increased the number of authorized shares of common stock to 30,000,000. Accordingly, all share data has been restated to reflect the common stock split.

CORPORATE INFORMATION

BOARD OF DIRECTORS

John R. Bertucci, Chairman, Chief Executive Officer and President
MKS Instruments, Inc.

Richard S. Chute, Esquire
Hill & Barlow

Owen W. Robbins, Executive Vice President (retired)
Teradyne, Inc.

Robert J. Therrien, President and Chief Executive Officer
Brooks Automation, Inc.

Louis P. Valente, Chairman and Chief Executive Officer
Palomar Medical Technologies, Inc.

MANAGEMENT

John R. Bertucci, Chairman, Chief Executive Officer and President

Ronald C. Weigner, Vice President and Chief Financial Officer

John J. Sullivan, Executive Vice President, Technology

William D. Stewart, Corporate Vice President and General Manager, Vacuum Products

Joseph A. Maher, Jr., Corporate Vice President and General Manager, Measurement & Control Products

Leo Berlinghieri, Corporate Vice President, Customer Support Operations

Paul A. Blackborow, Corporate Vice President, Marketing

Gerald G. Colella, Corporate Vice President, Business Operations

William P. Donlan, Treasurer and Corporate Controller

BUSINESS OPERATIONS

MKS Instruments, Inc.
Measurement and Control Products Group
Andover, Massachusetts

MKS Instruments, Inc.
Vacuum Products Group
Boulder, Colorado

MKS Instruments, Inc.
Austin, Texas

MKS Instruments, Inc.
Santa Clara, California

MKS Instruments France s.a.
Le Bourget, France

MKS Instruments Deutschland GmbH
Munich, Germany

MKS Instruments Benelux
Delft, The Netherlands

MKS Instruments, U.K. Ltd.
Altrincham, England
Livingston, Scotland
Kildare, Republic of Ireland

MKS Japan, Inc.
Tokyo, Japan

MKS Korea Co., Ltd.
Seoul, Korea

MKS Instruments, Inc. Singapore
Singapore

MKS Instruments, Inc. Taiwan
Hsinchu, Taiwan

SHAREHOLDER INFORMATION

Stock Listing
NASDAQ National Market, Symbol: MKSI

TRANSFER AGENT AND REGISTRAR

BankBoston, N.A.
Boston, Massachusetts

INDEPENDENT AUDITORS

PricewaterhouseCoopers LLP
Boston, Massachusetts

OUTSIDE COUNSEL

Hale and Dorr LLP
Boston, Massachusetts

Hill and Barlow
Boston, Massachusetts

INQUIRIES CONCERNING THE COMPANY

Stockholder inquiries about MKS Instruments may be addressed to Ronald Weigner, Vice President and Chief Financial Officer, Six Shattuck Road, Andover, MA 01810; or inquiries may be sent through the MKS web site at <http://www.mksinst.com>.

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