UNITED STATES SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM $10-\mathrm{K}$
[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR $15(\mathrm{~d})$ OF THE SECURITIES
EXCHANGE ACT OF 1934
For the fiscal year ended August 26, 2000
OR
[_] TRANSITION REPORT PURSUANT TO SECTION 13 OR $15(\mathrm{~d})$ OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from $\qquad$ to $\qquad$ _.

Commission File Number: 000-30789
ENTEGRIS, INC.
(Exact name of registrant as specified in its charter)


3500 Lyman Boulevard
Chaska, Minnesota 55318
(Address of principal executive offices)
Registrant's telephone number, including area code: (952) 556-3131
Securities registered pursuant to Section $12(b)$ of the Act: None
Securities registered pursuant to Section $12(\mathrm{~g})$ of the Act: Common Stock, \$0.01 Par Value

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

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

The aggregate market value of voting stock held by non-affiliates of the registrant, based on the last sale price of the Common Stock on October 31, 2000 as reported by the Nasdaq National Market, was approximately $\$ 175,000,000$. Shares held by each officer and director of the registrant and by each person who owns 5 percent or more of the outstanding Common Shares have been excluded from this computation in that such persons may be deemed to be affiliates of the registrant. This determination of affiliate status for this purpose is not necessarily a conclusive determination for other purposes.

The number of outstanding shares of the registrant's Common Stock, $\$ 0.01$ Par Value, as of October 31, 2000 was 68,424,736.

## DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the 2001 Annual General Meeting of Shareholders (the "Proxy Statement"), to be filed with the Securities and Exchange Commission pursuant to Regulation 14 A within 120 days after the Registrant's fiscal year ended August 26, 2000, are incorporated by reference into Part III of this report.

Certain Exhibits filed with the registrant's Registration Statement on Form $S-1$, No.333-33668 filed with the Commission on July 10, 2000, are incorporated by reference into Part IV of this report.

PART I

ITEM 1. BUSINESS

Overview

Entegris, Inc. is a leading provider of materials management solutions that protect and transport the critical materials used in the semiconductor and other high technology industries, in particular, the semiconductor manufacturing and disk manufacturing markets. Our materials management solutions assure the integrity of materials as they are handled, stored, processed and transported throughout the semiconductor manufacturing process, from raw silicon wafer manufacturing to packaging of completed integrated circuits. These solutions enable our customers to protect their investment in work-in-process and finished devices by facilitating the safe handling, purity and precision processing of the critical materials used in their manufacturing process.

With over 10,000 standard and customized products, we believe we provide the most comprehensive portfolio of materials management products to the microelectronics industry. Our materials management products, such as wafer shippers, wafer transport and process carriers, pods and work-in-process boxes, preserve the integrity of wafers as they are transported from wafer manufacturers to semiconductor manufacturers, processed into finished wafers and integrated circuits and subsequently tested, assembled and packaged. We also provide chemical delivery products, such as valves, fittings, tubing, pipe and containers, that assure the consistent and safe delivery and storage of sophisticated chemicals between chemical manufacturers and semiconductor manufacturers' point-of-use.

We sell our products worldwide to over 1,000 customers, who represent a broad base of leading suppliers to the microelectronics industry. Our customers in the semiconductor industry include wafer manufacturers, chemical suppliers, equipment manufacturers, device manufacturers and assemblers. Our semiconductor customers include Amkor/Anam, Applied Materials, Arch Chemicals, IBM, Infineon, Intel, Texas Instruments and TSMC. Our customers in data storage manufacturing include HMT, IBM, Komag and Seagate Technology.

International sales represented approximately $45 \%$ of our sales in fiscal 1998, and 48\% of our sales in both fiscal 1999 and fiscal 2000. We provide our customers with a worldwide network of sales and support personnel, which enable us to offer local service to our global customer base and assure the timely and cost-effective delivery of our products.

## Industry Background

Semiconductors, or integrated circuits, are the building blocks of today's electronics and the backbone of the information age. The market for semiconductors has grown significantly over the past several years. This trend is expected to continue due to rapid growth in Internet usage and the continuing demand for applications in data processing, wireless communications, broadband infrastructure, personal computers, handheld electronic devices and other consumer electronics. As integrated circuit performance has increased and the size and cost have decreased, the use of semiconductors in these applications has grown significantly. According to the Semiconductor Industry Association, or SIA, worldwide semiconductor revenues grew by $14.7 \%$ in 1999 to $\$ 144.1$ billion, and is expected to grow at a compound annual growth rate of $17.5 \%$ over the next three years to $\$ 233.6$ billion in 2002 .

The semiconductor materials industry is comprised of a wide variety of materials and consumables that are used throughout the semiconductor production process. The extensive and complex process of turning bare silicon wafers into finished integrated circuits is dependent upon a variety of materials used repeatedly throughout the
manufacturing process, such as silicon, chemicals, gases and metals. The handling of these materials during the integrated circuit manufacturing process requires the use of a variety of products, such as wafer shippers, wafer transport and process carriers, fluid and gas handling components and integrated circuit trays. Semiconductor unit volume is the primary driver of the demand for these materials and products because they are used or consumed throughout the production process and many are replenished or replaced on a regular basis. While influenced by capacity expansion, the semiconductor materials and materials management industries are less cyclical than the semiconductor capital equipment industries.

## Semiconductor Manufacturing Process

Semiconductor manufacturing is highly complex and consists of two principal segments: front-end and back-end processes. The front-end process begins with the delivery of raw wafers from wafer manufacturers to semiconductor manufacturers. After the wafers are shipped to semiconductor manufacturers, they are processed into finished wafers. During the front-end process, raw wafers undergo a series of highly complex and sensitive manufacturing steps, during which a variety of materials, including chemicals and gases, are introduced. Once the front-end manufacturing process is completed, finished wafers are transferred to back-end manufacturers or assemblers. The back-end semiconductor manufacturing process consists of test, assembly and packaging of finished wafers into integrated circuits. Materials integrity management products, such as wafer shippers, wafer transport and process carriers, fluid and gas handling components and integrated circuit trays, facilitate the storage, transport processing and protection of wafers through these front-end and back-end manufacturing steps. Semiconductor manufacturing has become more complex in recent years as new technologies have been introduced to enhance device performance and as larger wafer sizes have been introduced to increase production efficiencies. Increased processing complexity adds significantly to the cost of constructing and equipping a wafer manufacturing facility, or fab, which can now exceed \$2 billion.

As a result of the growing cost and complexity of manufacturing integrated circuits, semiconductormanufacturers have increasingly focused on improving productivity in their manufacturing facilities. In the 1970 s , yield management techniques such as process monitoring and in-line testing were introduced to the semiconductor manufacturing process. These techniques were widely adopted in the 1980 s and 1990s. Automation was introduced to semiconductor manufacturing facilities in the $1980 s$ in an effort to improve efficiency. Because of the widespread use of these technologies, significant productivity gains have already been realized.

## Materials Integrity Management Focus

In an effort to realize continued productivity gains, semiconductor manufacturers have become increasingly focused on materials management solutions that enable them to safely store, handle, process and transport materials throughout the manufacturing process to minimize the potential for damage or degradation to their materials and to protect their investment in processed wafers. Wafer processing can involve as many as 500 steps and take up to six weeks. As a result, a batch of 25 fully processed wafers can cost more than $\$ 1$ million. Since significant value is added to the wafer during each successive manufacturing step, it is essential that the wafer be handled carefully and precisely to minimize damage. In addition, materials handling products must meet exact specifications each and every time or valuable wafers can be damaged. For example, in the case of wafer carriers, precise wafer positioning, highly reliable and predictable cassette interface dimensions and advanced materials are crucial. The failure to prevent damage to wafers can severely impact integrated circuit performance, render an integrated circuit inoperable or disrupt manufacturing operations. Thus, semiconductor manufacturers are seeking to: minimize contamination, protect semiconductor devices from electrostatic discharge and shock, avoid process interruptions, prevent damage or abrasion to wafers and materials during automated processing caused by contact with other materials or equipment, prevent damage due to abrasion or vibration of work-in-process and finished goods during transportation to and from customer and supplier facilities and eliminate the dangers associated with handling toxic chemicals--Rose Associates reports suggest that the semiconductor industry will use over 100 million gallons of extremely corrosive chemicals in 2000 alone.

The importance of efficiently managing materials throughout the manufacturing process and the need to protect wafers is demonstrated by the existence of related standards established by the Semiconductor Equipment and Materials International (SEMI) organization, a leading industry trade organization. SEMI has specifically included the need to eliminate these risks in SEMI's official standards publication.

The need for efficient and reliable materials management is particularly important as new materials are introduced and as 300 mm semiconductor wafer manufacturing becomes a more prevalent manufacturing
technology. These 300 mm wafers are increasingly larger, more costly and more complex, and thus are more vulnerable to damage or contamination. In addition, new materials as well as increased wafer size and circuit shrinkage create new contamination and material compatability risks. These trends will present new and increasingly difficult shipping, transport, process and storage challenges.

The semiconductor materials industry and the materials management industry are highly fragmented and are served by a variety of providers, consisting of divisions within large corporations and smaller companies that target niche markets or specific geographic regions. Semiconductor manufacturers require materials management providers that demonstrate a deep knowledge of materials management and semiconductor manufacturing, have a track record of reliability, offer a broad product line and have the ability to support and service customer needs worldwide.

## Products and Capabilities

We are a leading provider of materials integrity management solutions that assure the integrity of materials as they are handled, stored, processed and transported throughout the semiconductor manufacturing process, from raw silicon wafers to completed integrated circuits. Among other things, our comprehensive portfolio of products enable:

- secure transport of materials, including chemicals and raw silicon wafers, from suppliers to the fab;
o storage, handling and transport of wafers throughout fab processing; o storage, mixing and distribution of chemicals throughout fab processing; - delivery of finished wafers to test, assembly and packaging facilities; and o safe handling of integrated circuit packages and bare die at the test, assembly and packaging facilities.

We also apply our materials integrity expertise within other markets in the microelectronics industry, such as the data storage market. Our comprehensive product line, advanced manufacturing capabilities, extensive polymer expertise, industry and applications knowledge and worldwide infrastructure benefit our customers and position us for growth.

## Comprehensive Product Line

With over 10,000 products, we believe that we offer the broadest product offering of materials management solutions for the microelectronics manufacturing industry. In the last eighteen months, we have released more than 100 new products, including front opening unified pods, or FOUPs, and 500 derivative products. In the semiconductor industry, we offer products to ship, process, test and store wafers before during and after the integrated circuit manufacturing process. We also offer a complete product line to transport, process, store and ship chemicals used in the semiconductor manufacturing process. In the data storage market, we offer a broad range of products to transport and handle magnetic hard disk drives, read/write heads and optical and compact disks.

## Advanced Manufacturing Capabilities

We have a wide range of advanced polymer manufacturing capabilities that use a variety of mold designs to produce high precision products, often in cleanroom facilities. Our polymer capabilities include injection molding, rotational molding, blow molding, extrusion, machining, welding and flaring, sheet lining, over-molding, insert molding and prototyping. These capabilities, coupled with our strengths in advanced tool design and mold-making, high volume manufacturing, quality assurance and polymer reclaiming, enable us to be a leader in our markets.

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Extensive Polymer Expertise
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We have extensive research experience with the advanced polymer materials used in our products. We have expertise in material evaluation, analytical chemistry, polymer blending and quality assurance techniques. We understand the properties of advanced polymers, how they interact with other materials used in the semiconductor manufacturing process and how they address the varying conditions of the manufacturing process.

## Industry and Applications Knowledge

Throughout our 34-year history, we have worked closely with semiconductor and hard disk drive manufacturers and materials suppliers to accumulate considerable insight into the increasingly complex
manufacturing requirements of the semiconductor and data storage markets. This insight allows us to more effectively target our research and development toward products that satisfy our customers' manufacturing requirements. Our industry knowledge encompasses contamination control, electrostatic discharge protection and cleanroom manufacturing. This industry knowledge has enabled us to serve as a leader in developing industry standards. Our ability to characterize and test products allows us to understand the interaction of our products with wafers in our customers' manufacturing process in order to ensure superior performance while reducing the risk of damage.

Worldwide Infrastructure

Our worldwide infrastructure positions us in every major region of the world where semiconductor manufacturing takes place. Our manufacturing operations and support offices in the United States, Europe and Asia enable us to offer local service, the timely and cost-effective delivery of our products and the capacity to meet customer requirements. We offer customer service 24 hours a day, 7 days a week.

Strategy

Our objective is to build upon our leadership in materials integrity management solutions for semiconductor device, equipment and materials suppliers, as well as apply our expertise to the growing materials management needs of other markets. The key elements of our strategy to achieve this objective are:

## Expand Technological Leadership

Since our inception, we have been an innovator in materials management solutions for the semiconductor industry. For example, our chemical delivery product line represents a number of industry firsts, including the first perfluoroalkoxy (PFA) fusion-bonded piping, the first valves with no metal parts in the fluid stream, the first nonmetallic capacitive sensors to successfully perform in harsh environments at high temperatures and the first pinch valve.

Additionally, we are a leading designer and manufacturer of 300 mm materials management solutions with products such as FOUPs, and reduced-pitch front opening shipping boxes, or FOSBs. We will continue to expand the scope of our technology leadership by identifying viable new polymers for materials management applications, developing innovative product designs and advanced processes for molding difficult materials and aiding the industry in establishing manufacturing standards for materials management products.

## Broaden Product Offering

Although we offer a comprehensive line of more than 10,000 products, we believe that there is significant potential for sales of new products and solutions in the semiconductor and data storage markets and within the broader microelectronics industry including, among others, new products and solutions for the emerging 300 mm wafer market; upgrading 200 mm fabs with new and improved products, new products and solutions to store, mix, handle and transport ultra-pure and corrosive chemicals used in the semiconductor manufacturing process; and new products and solutions in the area of testing, storing and shipping finished integrated circuits. We are committed to developing new products through both internal research and development and strategic acquisitions.

## Expand in Japan

We believe that further penetration of the Japanese market is critical to our growth. Five of the world's seven largest wafer manufacturers are headquartered in Japan. We have maintained a manufacturing and sales presence in Japan since the 1970 s through licensing arrangements, joint venture injection molding operations and a joint venture sales company, which has allowed us to develop strategic relationships and an understanding of the Japanese market. To increase our presence in Japan, we intend to expand our local manufacturing operations, introduce new products, expand our marketing initiatives and pursue strategic acquisitions.

Pursue Selective Acquisitions

Although we currently have no agreements or commitments to acquire any business, we intend to pursue selective acquisitions to complement our growth. Our goal is to acquire businesses that will strengthen our position in our targeted markets, enhance our technology base, increase our manufacturing capability and our product
offerings and expand our geographic presence. Expanding our business in key market segments could strengthen our presence with existing customers and provide access to new customers who seek a global service provider for their materials management needs.

Expand into New Industries
We believe that our materials management expertise can be applied outside the microelectronics industry to a variety of industries that use sophisticated manufacturing processes and have critical materials management needs. For example, in the biopharmaceutical industry, we are seeking to apply our expertise to live bacteria drug manufacturing, which is a metal-sensitive process enabled by our polymer expertise and products. We are also pursuing other growth opportunities in the chemical processing and medical device markets.

## Markets and Products

With over 10,000 standard and customized products, we believe that we provide the most comprehensive portfolio of materials integrity management solutions to the microelectronics industry. Our product lines address both the semiconductor and the data storage manufacturing markets. During the front-end semiconductor manufacturing process, we provide materials integrity management products and services that preserve the integrity of wafers as they travel from wafer manufacturers to semiconductor manufacturers. As the wafers are subsequently processed, we provide wafer transport products that reliably interface with automated processing equipment. We also provide products that safely deliver processing chemicals from chemical manufacturers to containers at the fab and then from containers to process equipment within the fab. During the back-end semiconductor manufacturing process, we provide products that transport and handle completed integrated circuits during testing, assembly and packaging. Furthermore, we provide products that prevent degradation and damage to magnetic hard disk drives and read/write heads as they are processed and shipped.

A summary of our materials management product offerings is as follows:
Semiconductor Manufacturing: Front-End
Wafer Manufacturing Products. We are a leading provider of critical shipping products that preserve the integrity of raw silicon wafers as they are transported from wafer manufacturers to semiconductor manufacturers. We lead the market with our extensive, high volume line of UltraPak(R) and CrystalPak(R) products which are supplied to wafer manufacturers in a full range of sizes covering 100, 125 , 150 and 200 mm wafers. The UltraPak was first introduced in the mid 1980s. It is made of a proprietary blend of polypropylene and is the market leader in wafer shipping boxes. The CrystalPak was introduced in the early 1990s as a reusable wafer shipping box and is made of a proprietary blend of polycarbonate. Continuing our technological leadership in the market, we offer the FabFit300 (TM) for the transportation and automated interface of 300 mm wafers. We offer a complete shipping system, including both wafer shipping containers as well as secondary packaging that provide another level of protection for wafers. This 300 mm wafer system reduces the cleaning, shipping and storage costs for semiconductor manufacturers and allows them to optimize the use of their premium cleanroom space.

Wafer Handling Products. We believe that we are a market leader in wafer handling products. We offer a wide variety of products that hold and position wafers as they travel to and from each piece of equipment used in the automated manufacturing process. These specialized carriers provide precise wafer positioning, wafer protection and highly reliable and predictable cassette interfaces in automated fabs. Semiconductor manufacturers rely on our products to improve yields by protecting wafers from abrasion, degradation and contamination during the manufacturing process. We provide standard and customized products that meet the full spectrum of industry standards and customers' wafer handling needs including FOUPs, wafer transport and process carriers, pods and work-in-process boxes. To meet our customers' varying wafer processing and transport needs, we offer wafer carriers in a variety of materials and in sizes ranging from 100 mm through 300 mm .

Chemical Delivery Products. Chemicals spend most of their time in contact with fluid storage and management distribution systems, so it is critical for fluid storage and handling components to resist these chemicals and avoid contributing contaminants to the fluid stream. We offer chemical delivery products that allow the consistent and safe delivery of sophisticated chemicals from the chemical manufacturer to the point-of-use in the semiconductor fab. Most of these products are made from perfluoroalkoxy or PFA, a fluoropolymer resin widely used in the industry because of its high purity and inertness to chemicals. The innovative design and reliable performance of our products and systems under the most stringent of process conditions has made us a recognized leader in high purity
fluid transfer products and systems. Both semiconductor manufacturers and semiconductor OEMs use our chemical delivery products and systems. Our comprehensive product line provides our customers with a single source provider for their chemical storage and management needs throughout the manufacturing process. Our chemical delivery products include:

Valves. We offer the Integra(R), Dymak(R) and Accuflo(TM) valves, each of which were first in their respective applications. Our Integra valve was the first to feature no external metal parts, which can corrode and pose a safety hazard when managing aggressive chemicals. Our Dymak valve is the first PFA pinch valve designed for chemical mechanical polishing, or CMP, slurries, bulk chemical distribution and other high flow applications. The all-PFA pinch element allows greater resistance to chemical corrosion and offers lower particle generation than competing valves. Our Accuflo metering valve is the first to be molded entirely from PFA, which provides enhanced control for a broad range of applications.

- Fittings. We provide fittings that have become the industry standard for high purity chemical resistance. We offer three styles of fittings: Flaretek(R), Quikgrip(R) and Galtek(R) fittings. Our Flaretek fittings feature a flare design that combines leak-free performance with minimum dead volume. All of the wetted surfaces of our fittings products are Teflon(R) PFA, chosen for its resistance o corrosion and wear in the semiconductor processing environment. Our Quikgrip fitting has a gripper design that features easy, user-friendly assembly. Additionally, our Galtek fittings represent the industry's first all PFA fitting featuring an integral ferrule design for strength along with chemical resistance features.
- Tubing. We offer three grades of FluoroLine(R) PFA tubing, which address our customers' needs ranging from industrial to ultra high purity applications.

O Pipe. Our PUREBOND(R) fusable piping components provide leak-free piping systems by fusion bonding over rigid pipe and components. Our patented method for joining PFA components allows flexibility of design and assembly of fluid delivery systems. We offer many component configuration sizes ranging from $1 / 4$ inch to 2 inch inner diameters, meeting a wide range of customer design requirements.

- Chemical Containers. We offer a broad spectrum of chemical transport and storage containers that help ensure the safe delivery of sophisticated chemicals from chemical manufacturers to the semiconductor manufacturers' point-of-use. Our containers are well suited for the microelectronics industry because they help minimize contamination of chemicals to concentrations of parts per billion and parts per trillion. Our sheet lining process allows us to provide containers for bulk chemical storage and shipment of up to 19,000 liters. We offer a wide variety of container types including drums, pressure vessels, intermediate bulk containers, custom containers and bottles. In addition, we provide our patented quick connect system, which enables safe, risk-free connections for chemical container change-outs.
- Custom Fabricated Products. We offer a wide variety of custom-molded, welded or fabricated fluid products, including custom valves, fittings, filter housings, caps, closures, flanges and tanks. We manufacture these custom products to meet stringent standards of consistency and safety by offering a variety of high performance, chemically resistant materials. Some of our valves fall within the scope of United States export licensing regulations pertaining to products that could be used in connection with chemical weapons processes. These regulations require us to obtain licenses to ship some of our products to customers in certain countries, and we routinely apply for and obtain export licenses. The applicable export licensing regulations frequently change. Moreover, the types and categories of products that are subject to export licensing are often described in the regulations in general terms and could be subject to differing interpretations. We are currently cooperating with the United States Department of Commerce to clarify our licensing practices and to review our practices with respect to prior sales of our valve products to customers in Taiwan and Israel. While the Department of Commerce review is pending, we have been applying for export licenses for ongoing orders for our valves from customers in Taiwan and Israel, and the Department of Commerce has been granting licenses for these sales.

Semiconductor Manufacturing: Back-End
Test, Assembly and Packaging Products. Rapidly changing packaging strategies for semiconductor applications are creating new materials management challenges for back-end manufacturers. We offer chip and matrix trays as well as shippers and carriers for thinned wafers, bare die handling and integrated circuits. Our materials management products are compatible with industry standards and available in a wide range of sizes with various feature sets. Our standard trays offer dimensional stability and permanent electrostatic discharge protection. Our trays also offer a
number of features including custom designs to minimize die movement and contact; shelves and pedestals to minimize direct die contact, special pocket
features to handle various surface finishes to eliminate die sticking; and other
features for automated or manual die placement and removal. In addition, we support our product line with a full range of accessories to address specific needs such as static control, cleaning, chip washing and other related materials management requirements. To better address this market, we have established ictray.com, a website which allows new and existing customers to select from our full range of standard and custom integrated circuit trays.

Hard Disk Drive Manufacturing

Disk Manufacturing Products. Like the semiconductor industry, the data storage market continues to face new challenges and deploy new technologies at an accelerating rate. We provide materials management products and solutions to manage two critical sectors of this industry: magnetic disks and the read/write heads used to read and write today's higher density disks. Because both of these hard disk drive components are instrumental in the transition to more powerful storage solutions, we offer products that carefully protect and maintain the integrity of these components during their processing, storage and shipment. Our product offerings for magnetic hard disk drives include process carriers, boxes, packages, tools and shippers for aluminum and other disk substrates. Our optical hard disk drive products include stamper cases, process carriers, boxes and glass master carriers. Our read/write head products include transport trays, carriers, handles, boxes, individual disk substrate packages and accessories.

Other Industries
We offer our extensive polymer molding expertise to customers outside the microelectronics industry, such as the biopharmaceutical, medical and telecommunications industries. We work with our customers in these industries to develop specialized components and assemblies that meet their stringent specifications for close tolerances and cleanliness. We offer a wide variety of services and capabilities to these customers, including materials research, parts design, mold design, manufacturing, molding, assembly and final testing.

The following table sets forth for the fiscal years indicated our net sales derived from the sale of semiconductor manufacturing products, disk manufacturing products and other products.

| 2000 | 1999 | 1998 |
| ---: | ---: | ---: |
| $84 \%$ | $76 \%$ | $75 \%$ |
| $12 \%$ | $20 \%$ | $20 \%$ |
| $4 \%$ | $4 \%$ | $5 \%$ |
| ----- | $100 \%$ | $100 \%$ |
| $100 \%$ | $=====$ | $=====$ |

Customers
We have over 1,000 customers in North America, Europe and Asia, including every major semiconductor manufacturer in the world. No single end-customer accounts for over $5 \%$ of our sales. We provide products and solutions primarily to semiconductor manufacturers and semiconductor equipment manufacturers, chemical materials suppliers and data storage manufacturers. The following table sets forth a list of major customers in each of the markets in which we operate

Semiconductor Wafer Manufacturing
Mitsubishi Silicon
MEMC
Shin Etsu Handotai (SEH)

Microelectronics and Semiconductor Materials
Arch Chemicals
Ashland
Millipore

BOC Edwards
Semiconductor Equipment Manufacturing
Applied Materials SCP Global Technologies
FSI International

Data Storage Manufacturing
Hoya

MMC

HMT
Seagate Technology IBM

Semiconductor Device Manufacturing and
Assembly
AMD LG International
Amkor/Anam Micron Technology
ASE Test Motorola
Carsem NEC
Fujitsu Philips
Hitachi Samsung
Intel STMicroelectronics
IBM Texas Instruments
Infineon TSMC
Lucent
UMC

Custom Products for Other Industries
ADC Telecom Guidant
Boston Scientific Medtronic
Ericsson

We market and sell our products on a worldwide basis through a network of direct sales personnel, commissioned sales representatives and stocking distributors. Our sales and marketing initiatives in Japan are coordinated through the sales office of Fluoroware Valqua Japan, our majority owned subsidiary. Metron, a global distributor of semiconductor products and services partially owned by Entegris, has broad distribution rights in Europe, and in portions of the United States and Asia. International sales accounted for $45 \%$ of our revenues in fiscal 1998, and 48\% in both fiscal 1999 and fiscal 2000.

We support our worldwide sales activities by stocking select products in regional warehouses, which facilitates rapid response to customers' needs. For example, Entegris Europe GmbH is a stocking location for distribution throughout Europe. The worldwide offices of Metron also carry inventories to meet regional demand. Direct customer support comes from our five regional service and customer support offices located in the United States, Germany, Japan, Korea and Malaysia. We work with each of our regional service and customer support offices to provide regional marketing support, including public relations, collateral development and publication, corporate positioning, advertising and trade show participation and communications. Our marketing groups based in the United States support our global marketing strategy, e-business and other initiatives.

## Manufacturing

Our customers rely on our products to assure their materials integrity by providing dimensional precision and stability, cleanliness and consistent performance. Our ability to meet our customers' expectations, combined with our substantial investments in worldwide manufacturing capacity, position us to respond to the increasing materials management demands of the microelectronics industry and other industries that require similar levels of materials integrity. To meet our customer needs worldwide, we have established an extensive global manufacturing network with facilities in the United States, Germany, Japan, Malaysia and South Korea. Because we work in an industry where contamination control is paramount, we maintain Class 100 to Class 10,000 cleanrooms for manufacturing and assembly. We believe that our worldwide manufacturing operations and our advanced manufacturing capabilities are important competitive advantages. Our advanced manufacturing capabilities include:

- Injection Molding. Our manufacturing expertise is based on our long experience with injection molding. Using molds produced from computer-aided processes, our manufacturing technicians utilize specialized injection molding equipment and operate within specific protocols and procedures established to consistently produce precision products.
- Extrusion. Extrusion is the use of heat and force from a screw to melt solid polymer pellets in a cylinder and then forcing the resulting melt through a die to produce tubing and pipe. We have established contamination free on-line laser marking and measurement techniques to properly identify products during the extrusion process and ensure consistency in overall dimension and wall thicknesses.
- Blow Molding. Blow molding consists of the use of heat and force from a screw to melt solid polymer pellets in a cylinder and then forcing the melt through a die to create a hollow tube. The molten tube is clamped in a mold and expanded with pressurized gas until it takes the shape of the mold. We utilize advanced three-layer processing to manufacture 55 gallon drums, leading to cost savings while simultaneously assuring durability, strength and purity.
- Rotational Molding. Rotational molding is the placing of a solid polymer powder in a mold, placing the mold in an oven and rotating the mold on two axes so that the melting polymer coats the entire surface of the mold. This forms a part in the shape of the mold upon cooling. We use rotational molding in manufacturing containers up to 5,000 liters. Our rotational molding expertise has provided rapid market access for our current fluoropolymer sheet lining manufacturing business.
- Sheet Lining. Sheet lining consists of welding thin sheets of polymer into a solid lining that conforms to the shape of a large vessel, such as a tanker truck. We sheet line stainless steel tanks up to 19,000 liters in size through a complex adhesive and welding process that provides customers with purity and strength for the high volume storage and transportation of corrosive chemicals.
- Machining. Machining consists of the use of computer controlled equipment to create shapes, such as valve bodies, out of solid polymer blocks or rods. Our computerized machining capabilities enable speed and repeatability in volume manufacturing of our machined products, particularly products utilized in chemical delivery applications.
o Assembly. We have established protocols, flow charts, work instructions and quality assurance procedures to assure proper assembly of component parts. The extensive use of robotics throughout our facilities reduces labor costs, diminishes the possibility of contamination and assures process consistency.
- Tool Making. We employ more than 100 toolmakers at three separate locations in the United States. Our toolmakers produce the majority of the tools we use throughout the world.

We have made significant investments in systems and equipment to create innovative products and tool designs. Our pro-engineer CAD equipment allows us to develop three-dimensional electronic models of desired customer products to guide design and tool-making activities. Our pro-engineer CAD equipment also aids in the rapid prototyping of products.

We also use computer-automated engineering in the context of mold flow analysis. Beginning with a pro-engineer 3D model, mold flow analysis is used to visualize and simulate how our molds will fill. The mold flow analysis techniques cut the time needed to bring a new product to market because of the reduced need for sampling and development. Also, our pro-engineer CAD equipment can create a virtual part with specific geometries, which drives subsequent tool design, tool manufacturing, mold flow analysis and performance simulation.

In conjunction with our three-dimensional product designs, we use finite element software to simulate the application of a variety of forces or pressures to observe what will happen during product use. This analysis helps us anticipate forces that affect our products under various conditions. The program also assists our product designers by measuring anticipated stresses against known material strengths and establishing proper margins of safety.

Engineering, Research and Development

We devote a significant portion of our financial and human resources to research and development programs. As of August 26, 2000, we employed approximately 135 people in our worldwide engineering, research and development department. Of these, more than 20 work in our materials and product testing research laboratories, where we conduct general materials research to enhance current products and strengthen our advanced materials knowledge. The other engineering, research and development personnel perform product design and development in response to general market needs as well as specific industry and customer requests. Increasingly, customers ask us to conduct research and development to find materials, products and systems that meet their specific materials handling needs. We utilize sophisticated methodologies to develop and characterize our materials and products. Our materials technology lab is equipped to analyze the physical, rheological, thermal, chemical and compositional nature of the polymers we use. Our materials lab includes standard and advanced polymer analysis equipment such as inductively coupled plasma mass spectrometry (ICP/MS), inductively coupled plasma atomic emission spectrometry (ICP/AES), Fourier transform infrared spectroscopy (FTIR) and automated thermal desorption gas chromatography/mass spectrometry (ATD-GC/MS). This advanced analysis equipment allows us to detect contaminants in materials that could harm the semiconductor manufacturing process to levels as low as parts per billion, and in some cases parts per trillion. Our capabilities to test and characterize our materials and products are focused on continuously reducing risk to our customers. The majority of our research laboratories are located at our Chaska, Minnesota and Colorado Springs, Colorado facilities. We expect that technology and product research and development will continue to represent an important element in our ability to develop and characterize our materials and products.

## Facilities

We conduct manufacturing operations in facilities strategically positioned throughout the world. Our factory and warehouse facilities adequately meet our production capacity and work flow requirements. Due to significant capital spending over the past several years, we estimate that we are currently operating at approximately $50 \%$ of manufacturing capacity and $90 \%$ of warehouse capacity. However, we believe that we can easily obtain sufficient warehouse capacity.

## Patents and Proprietary Rights

We rely on patent, copyright, trademark and trade secret laws confidentiality agreements and other contractual arrangements with our employees, strategic partners and others to protect our technology. Our goal is to obtain intellectual property protection to maintain our position as a leader in materials management and to give us a competitive advantage in the industry.

We actively pursue a program of patent applications to seek protection of technologically sensitive features of our materials management products and processes. We conduct extensive research on the patentability of our innovations, the potential infringement on existing patents and the business value of retaining the information as proprietary knowledge. With this information, we determine whether to seek a patent, disclose the information through an industry white paper or maintain the information as a trade secret As of August 26, 2000, our patent portfolio consisted of 104 current U.S. patents, which expire from 2000 to 2018 , and 43 pending U.S. patent applications. We also regularly seek patent protection outside the United States by filing counterpart applications, principally in Europe, Taiwan and Japan. We also pursue trademark registration of our key trademarks in the principal countries where we do business.

The patent position of any manufacturer, including us, is subject to uncertainties and may involve complex legal and factual issues. Litigation may be necessary in the future to enforce our patents and other intellectual property rights or to defend us against claims of infringement or invalidity. The steps that we have taken in seeking patents and other intellectual property protections may prove inadequate to deter misappropriation of our technology and information. In addition, our competitors may independently develop technologies that are substantially equivalent or superior to our technology.

Competition

We face substantial competition from a number of companies, some of which have greater financial, marketing, manufacturing and technical resources. We are not aware of any single competitor who offers a comparable breadth of materials management products and services in the microelectronics industry. We compete on the basis of our technical expertise, product performance, advanced manufacturing capabilities, global locations, quality, reliability, established reputation and customer relationships. We believe that we compete favorably on the basis of these factors in each of our served markets.

Our wafer management product line faces competition largely on a product-by-product basis. We have historically faced significant competition from companies such as Kakizaki, Sanga Flantek, Dainichi and Asyst Technologies. These companies compete with us primarily in 200 mm and 300 mm applications. Our chemical delivery products also face worldwide competition from companies such as Furon, Parker, Pillar and Gemu. In assembly, packaging and testing of semiconductor and data storage applications, we compete with companies such as Advantek, GEL-Pak, ITW/Camtex, Peak International and 3M. Primary competition for our wafer shipping containers comes from Japanese companies such as SEP and Kakizaki. In the disk shipping and bare and packaged die tray markets, we face competition from regional suppliers.

Employees

As of August 26, 2000, we had approximately 1,800 full-time employees throughout the world, including approximately 1,300 in manufacturing, 135 in engineering, research and development, including custom product development, and 365 in selling, marketing and general and administrative activities, including customer service, finance and accounting, information technology, human resources and corporate management. Of our full-time employees, approximately 1,380 are located in the United States, 120 are located in Europe and about 300 are located in Asia. None of our employees are covered by a collective bargaining arrangement. We consider our relationship with our employees to be good.

Legal Proceedings
We are not a party to any material pending legal proceedings.
Financial Information about Segments and Geographic Areas

See Note 16 to the Consolidated Financial Statements contained herein.

## RISK FACTORS

Our business faces significant risks. These risks include those described below and may include additional risks and uncertainties not presently known to us or that we currently believe are immaterial. If any of the events or circumstances described in the following risks occurs, our business, operating results or financial condition could be materially adversely affected. These risks should be read in conjunction with the other information set forth in this report. Additional risks and uncertainties not presently known to us or that we currently believe are immaterial also may impair our business operations. If any of the events described in the following risks occur, our business, operating results and financial condition could be significantly harmed.

Industry Risk
The semiconductor industry is highly cyclical, and an industry downturn would reduce revenue and profits.

Our business depends on the purchasing patterns of semiconductor manufacturers, which, in turn, depend on the current and anticipated demand for semiconductors and products utilizing semiconductors. The semiconductor industry is highly cyclical and historically has experienced periodic downturns, which often have resulted in decreased expenditures by semiconductor manufacturers. These downturns, which occurred most recently in 1996 and 1998, have harmed our sales, gross profits and operating results. Furthermore, even in periods of reduced demand, we must continue to maintain a satisfactory level of research and development expenditures and continue to invest in our infrastructure. We expect the semiconductor industry to continue to be cyclical. Any future downturns will reduce revenue and possibly increase pricing pressure.

Our revenue and operating results may fluctuate in future periods.
Our sales and operating results can vary significantly from quarter to quarter. Because our expense levels are relatively fixed in the short-term, an unanticipated decline in revenue in a particular quarter could disproportionately affect our net income in that quarter. In addition, because we typically do not have significant backlog, changes in order patterns have a more immediate impact on our revenues. The 1998 downturn in the semiconductor industry resulted in declines in our net income from $\$ 16.9$ million in fiscal 1997 to $\$ 13.1$ million in fiscal 1998 and a further decline to $\$ 5.7$ million in fiscal 1999. We anticipate that fluctuations in operating results will continue in the future. We believe that period-to-period comparisons of our results of operations may not be meaningful, and you should not rely upon them as indicators of our future performance.

Our industry is subject to rapid technological change, and we may fail to successfully anticipate customer needs and develop new products.

The microelectronics industry is subject to rapid technological change, changing customer requirements and frequent new product introductions. Because of this, the life cycle of our products is difficult to determine. Our future success will depend, to a significant extent, on our ability to keep pace with changes in the market and on our ability to enhance our current products and introduce new products. For example, we must continue to identify new polymers, improve our product design and qualify our products with our customers. We might not successfully develop and introduce new products and materials in a timely and cost-effective manner. Any product enhancements or new products developed by us might not gain market acceptance. In addition, products or technologies developed by competitors could make our products or technologies obsolete or less competitive. If we do not anticipate or respond adequately to technological developments or customer requirements, we could lose market share or miss market opportunities.

## International Risks

We are dependent upon sales outside the United States, and the risks associated with international operations could affect our ability to maintain and increase revenues.

International sales accounted for $45 \%$ of our revenues in fiscal 1998, and $48 \%$ in both fiscal 1999 and fiscal 2000. We anticipate that sales outside the United States will be an increasing percentage of our revenues as we pursue our international growth strategy. A significant portion of our revenues will therefore be subject to risks associated with sales in markets outside the United States, including unexpected changes in legal and regulatory requirements and policy; changes affecting the markets for semiconductor technology; difficulties in managing sales
representatives or distributors; difficulties in staffing and managing foreign operations; and difficulties in protecting our intellectual property outside the United States.

These risks could increase the cost of doing business internationally and could prohibit or hinder our ability to do business in certain countries.

Taiwan accounts for a growing portion of the world's semiconductor manufacturing. There are currently strained relations between China and Taiwan. Any adverse development in those relations could significantly impact the worldwide production of semiconductors, which would lead to reduced sales of our products.

The value of the U.S. dollar in relation to other currencies may also harm our sales to customers outside the United States. In fiscal 2000, approximately one-quarter of our sales revenue was not denominated in U.S. dollars, which exposes us to currency fluctuations. We intend to expand internationally, and to the extent that we do so or change our pricing practices to denominate prices in other currencies, we will be exposed to increased risks of currency fluctuations as well as the increased risks of doing business internationally.

An increased concentration of wafer manufacturing in Japan could result in lower sales of our wafer management and shipping products.

A large percentage of the world's wafer manufacturing currently takes place in Japan. Our market share in Japan is currently low, and we believe that we must increase our manufacturing capabilities in Japan in order to improve our market share. If we are not able to successfully expand our manufacturing capability and market share in Japan, we might not be able to maintain our global market share in wafer manufacturing and handling products, especially if wafer manufacturing in Japan increases.

Regulatory compliance impacts delivery times and reduces our ability to be competitive in certain countries.

We are subject to federal, state, local and foreign regulations. Compliance with future regulations, including environmental regulations in the United States and abroad, could require us to incur substantial costs. If we do not comply with current or future regulations, directives and standards, we could be subject to fines; our production could be suspended or delivery could be delayed; and we could be prohibited from offering particular products in specified markets.

Certain of our fluid handling products fall within the scope of U.S. export licensing regulations pertaining to products that could be used in connection with chemical weapons processes. These regulations require us to obtain licenses to ship some of our products to customers in certain countries, and we routinely apply for and obtain export licenses. The applicable export licensing regulations frequently change. Moreover, the types and categories of products that are subject to export licensing are often described in the regulations in general terms and could be subject to differing interpretations. We are currently cooperating with the United States Department of Commerce to clarify our licensing practices and to review our practices with respect to sales of products to certain countries in recent years. The review relates to sales of approximately $\$ 100,000$ in fiscal 1999 . The review does not relate to any product sales in fiscal 2000. The Department of Commerce may determine that some of our past practices were not in compliance with export licensing regulations, which could subject us to penalties. Any denial or delay in the issuance of future export licenses could result in lost sales.

We are dependent on Metron Technology N.V. for a substantial portion of our sales, and a decline in sales by Metron could limit our ability to maintain and grow our revenues.

For the period ended August 26, 2000, we derived $28.3 \%$ of our revenues from customers that purchase our products through Metron Technology N.V., which distributes our products in parts of Europe, Asia and the United States. Any negative material event relating to Metron may impact our business. For example, Metron's sales could decline or Metron could choose to sell our competitors' products instead of our products.

In November 1999, Metron completed an initial public offering.
Primarily due to the offering, our ownership of Metron decreased from $32.8 \%$ to $20.3 \%$ at August 26 , 2000. Although we retain a significant ownership stake in Metron, we now have less influence on Metron's business and decision making, and Metron may make decisions regarding the conduct of its business that could harm us and over which we have no control.

Relationships with joint venture partners affect our ability to do business internationally.

We have entered into joint venture agreements intended to complement or expand our manufacturing and distribution operations in Japan and Korea. The success of our joint ventures depends in part on our ability to strengthen our relationships with our joint venture partners. If we do not develop and maintain good relationships with joint venture partners, we will be less able to successfully penetrate international markets.

Economic difficulties in countries in which we sell our products could lead to a decrease in demand for our products.

The volatility of general economic conditions as well as fluctuations in currency exchange and interest rates can lead to decreased demand in countries in which we sell products. For example, in 1997 and 1998, many Asian countries experienced economic and financial difficulties. During this period, our sales to customers in Asia declined. Moreover, any economic, banking or currency difficulties experienced by countries in which we have sales may lead to economic recession in those countries. This in turn could result in a reduction in sales to customers in these countries.

## Manufacturing Risks

Our dependence on single and limited source suppliers could affect our ability to manufacture our products.

We rely on single and limited source suppliers for some of the advanced polymers that are critical to the manufacturing of our products. At times, we have experienced a limited supply of some of these polymers, which resulted in delays and increased costs. An industry-wide increase in demand for these polymers could affect the ability of our suppliers to provide sufficient quantities to us. If we are unable to obtain an adequate quantity of such supplies, our manufacturing operations may be interrupted. Obtaining alternative sources could result in increased costs and shipping delays, which could decrease profitability and damage our relationships with current and potential customers.

Prices for polymers have varied widely in recent years. We have a long-term contract with a key supplier of polymers that fixes our price for purchases of up to specified quantities. If our polymer requirements exceed the quantities specified in the contract, we could be exposed to higher material costs. If the cost of polymers increases and we are unable to correspondingly increase the sales price of our products, our profit margins would decline.

Our production processes are becoming increasingly complex, and our production could be disrupted if we are unable to avoid manufacturing difficulties.

Our manufacturing processes are complex and require the use of expensive and technologically sophisticated equipment and materials. These processes are frequently modified to improve manufacturing yields and product quality. We have on occasion experienced manufacturing difficulties, such as temporary shortages of raw materials and occasional critical equipment breakdowns that have delayed deliveries to customers. A number of our product lines are manufactured at only one or two facilities, and any disruption could impact our sales until another facility could commence or expand production of such products.

Our manufacturing operations are subject to numerous risks, including the introduction of impurities in the manufacturing process that could lower manufacturing yields and make our products unmarketable; the costs and demands of managing and coordinating geographically diverse manufacturing facilities; and the disruption of production in one or more facilities as a result of a slowdown or shutdown in another facility.

We could experience these or other manufacturing difficulties, which might result in a loss of customers and exposure to product liability claims.

We may lose sales if we are unable to timely procure, repair and replace capital equipment necessary to manufacture many of our products.

Internally designing and producing new complex tools or purchasing additional capital equipment can take several months. If our existing equipment fails, or we are unable to obtain new equipment quickly enough to satisfy
any increased demand for our products, we may lose sales to competitors. In particular, we do not maintain duplicate tools for most of our important products. Fixing or replacing complex tools is time consuming, and we may not be able to replace a damaged tool in time to meet customer requirements.

We generally have no written contracts with our customers, which diminishes our ability to plan for future manufacturing needs.

As is typical in our industry, our sales are primarily made on a purchase order basis and we have few written purchase contracts with our customers. Customers may choose to delay or cancel orders. As a result, we cannot predict the level of future sales or commitments from our current customers, which diminishes our ability to effectively allocate labor, materials and equipment in the manufacturing process.

We may not be able to protect our intellectual property, which may limit our ability to compete.

Our success depends in part on our proprietary technology. We attempt to protect our intellectual property rights primarily through patents, trademarks and non-disclosure agreements. However, we might not be able to protect some of our technology, and competitors might be able to develop similar technology independently. In addition, the laws of certain foreign countries might not afford our intellectual property the same protection as do the laws of the United States. The costs of applying for patents in foreign countries and translating the applications into foreign languages require us to select carefully the inventions for which we apply for patent protection and the countries in which we seek such protection. Generally, we have concentrated our efforts on obtaining international patents in Europe, Japan and Taiwan because there are competing manufacturers in those countries, as well as current and potential customers. Our inability or failure to obtain adequate patent protection in a particular country could harm our ability to compete effectively in that country. Our patents also might not be sufficiently broad to protect our technology, and any existing or future patents might be challenged, invalidated or circumvented. Additionally, our rights under our patents may not provide competitive advantages.

Litigation may be necessary to defend us against claims of intellectual property infringement, which if successful could cause us to pay significant damage awards or prevent us from manufacturing or selling our products.

Some of our current or future products could infringe patents or proprietary rights of others. Litigation may be necessary to enforce patents issued to us, to protect our trade secrets or know-how, to defend ourselves against claimed infringement of the rights of others or to determine the scope and validity of the proprietary rights of others. Litigation could result in substantial cost and diversion of our efforts. Moreover, an adverse determination in any litigation could cause us to lose proprietary rights, subject us to significant liabilities to third parties, require us to seek licenses or alternative technologies from third parties, or prevent us from manufacturing or selling our products.

Operating Risks
If we do not attract and retain key personnel, our production would be disrupted and shipments might be delayed.

Our success depends upon the continued efforts of our senior management team and our technical, manufacturing, marketing and sales personnel. These employees may voluntarily terminate their employment with us at any time. If a significant number of manufacturing personnel were to voluntarily terminate their employment with us, our production would be disrupted and shipments might be delayed.

Hiring qualified personnel has become more difficult in recent years. The U.S. economy's long period of expansion and high rate of employment have increased the difficulty of recruiting qualified manufacturing personnel, such as operators of our manufacturing equipment. Competition for such personnel in the technology and semiconductor industries is particularly intense. Recruiting and hiring employees with the combination of skills and attributes required to conduct our business is extremely competitive, time-consuming and expensive. We may not be able to successfully identify, hire and train new manufacturing personnel.

If we fail to identify, complete and successfully integrate future acquisitions, our ability to expand our operations and increase revenues would be harmed.

One of our strategies is to expand by acquiring other businesses, technologies or product lines. However, we currently have no commitments or agreements with respect to any acquisition. We might not be able to successfully identify, negotiate or finance any acquisitions, or integrate such acquisitions with our current business, which could diminish our ability to expand our business and remain competitive. Moreover, expansion could require significant management time and resources.

Competition in the semiconductor materials management industry could intensify as the industry further consolidates, which would limit our ability to maintain and increase our market share and raise prices.

We face substantial competition from a number of companies, some of which have greater financial, marketing, manufacturing and technical resources. Because of an industry trend toward consolidation, larger providers of materials management solutions and products could emerge, with potentially broader product lines. Larger competitors could spend more on research and development, which could give those competitors an advantage in meeting customer demand. We expect that existing and new competitors will improve the design of their existing products and will introduce new products with enhanced performance characteristics. The introduction of new products or more efficient production of existing products by our competitors could diminish our market share and increase pricing pressure on our products. Further, customers continue to demand lower prices, shorter delivery times and enhanced product capability. If we do not respond adequately to such pressures, we could lose customers or orders. If we are unable to compete successfully, we could experience pricing pressures, reduced gross margins and order cancellations.

Lack of market acceptance of our 300 mm products could harm our operating results.

The growing trend toward the use of 300 mm wafers has contributed to the increasing complexity of the semiconductor manufacturing process. The greater diameter of these wafers requires higher tooling costs and presents more complex handling, storage and transportation challenges. We are making substantial investments to complete a full line of 300 mm wafer manufacturing and handling products. Our customers may not adopt our 300 mm wafer manufacturing and handing product lines. If we are not a leader in the 300 mm market, the market share for our other products could decline. In addition, if the trend toward 300 mm wafer manufacturing does not evolve as we anticipate, sales of our products for these applications would be minimal and we might not recover our development costs.

Our management information and financial reporting systems are not fully integrated and need to be upgraded, which will be costly. If these new systems are not successfully implemented, our business may be harmed.

The management information and financial reporting systems that we use in our day-to-day operations are not fully integrated. We will need to continue to invest in these systems in order to maintain our current level of business and accommodate any future growth. We anticipate that the total costs associated with upgrading and integrating our systems will be approximately \$8 to \$10 million over the next two to four years. Our failure to successfully upgrade and integrate our management information and financial reporting systems may disrupt our business, create inefficiencies due to the lack of centralized data, result in unnecessarily high levels of inventories, and increase expenses associated with additional employees to compensate for the lack of fully integrated systems.

We may not be able to significantly expand our customer base by soliciting customers of our competitors because customers tend to standardize materials handling procedures and are reluctant to change their standardized manufacturing processes.

Once an original equipment manufacturer or a microelectronics manufacturer has selected particular materials management products, that manufacturer typically must qualify those products before incorporating them into customized manufacturing procedures that assure precise and consistent processing steps. Qualification and incorporation of materials management products by manufacturers can be time-consuming and expensive. After these procedures have been established, manufacturers are very reluctant to switch to another provider of materials management products. Accordingly, it may be difficult to sell our products to a manufacturer that has already selected a competitor's products.

We may face product liability claims, which could harm our operating results.
Our products are used by our customers to handle sensitive, complex and valuable wafers and semiconductor materials and devices. If our products fail, these materials could be damaged or contaminated, which could expose us to product liability claims. Business interruption and personal injury claims are also possible in the event of a product failure or misapplication of our product by a customer. In addition, the failure of our chemical delivery products could subject us to environmental liability claims and a failure of our custom medical device components could subject us to personal injury claims. We cannot predict whether our existing insurance coverage limits are adequate to protect us from any liabilities that we might incur in connection with the manufacture, sale or use of our products. A successful product liability claim or series of product liability claims brought against us could damage our reputation, diminish customer confidence in our products, expose us to increased competition and increase our insurance costs.

We may not be able to pursue our expansion strategy if we are unable to raise required funds.

We may need to raise additional capital to acquire or invest in complementary businesses. If we issue additional equity securities, the ownership stakes of our existing shareholders would be reduced, and the new equity securities may have rights, preferences or privileges senior to those of our existing common shares. If we cannot raise funds, if needed, on acceptable terms, we may not be able to develop our business, take advantage of future opportunities, or respond to competitive pressures or unanticipated requirements.

We do not intend to pay dividends, and therefore investors must rely solely on the market value of our shares to realize a return on their investment.

We have never declared or paid any cash dividends on our capital shares. In addition, our loan agreements restrict our ability to pay dividends without the consent of our lenders. We currently intend to retain any future earnings to fund the development and growth of our business and, therefore, do not anticipate paying any cash dividends in the foreseeable future.

Special Note Regarding Forward-Looking Statements
Some of the statements under the captions "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere in this report are "forward-looking statements." These statements involve known and unknown risks, uncertainties, and other factors that may cause our, or our industry's, actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by the forward-looking statements. These factors are listed under "Risk Factors" and elsewhere in this report.

In some cases, you can identify forward-looking statements by terminology such as "expects," "anticipates," "intends," "may," "should," "plans," "believes," "seeks," "estimates," "could," "would" or the negative of such terms or other comparable terminology.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of these statements. We are under no duty to update any of the forward-looking statements after the date of this report to conform these statements to actual results.

ITEM 2. PROPERTIES
Our corporate headquarter is located in Chaska, Minnesota. The table below presents information relating to our manufacturing and warehousing facilities:

| Facility <br> Location | Square <br> Footage | Type of Ownership | Manufacturing Use |
| :---: | :---: | :---: | :---: |
| United States |  |  |  |
| Minnesota | 712,000 | 6 facilities owned, 2 facilities leased | ion Molding, Extrusion, Blow ng, Rotational Molding, Tool Making, -molding, Sheet Lining |


| Colorado | 148,000 | 1 facility owned, <br> 1 facility leased | Injection Molding, Tool Making |
| :---: | :---: | :---: | :---: |
| California | 30,000 | 1 facility leased | Custom Manufacturing |
| Texas | 20,000 | 1 facility leased | Polymer Reclaiming |
| Malaysia | 105,000 | 1 facility owned | Injection Molding |
| Korea | 78,000 | 1 facility owned, 1 facility leased | Injection Molding, Extrusion, Sheet Lining |
| Germany | 44,000 | 1 facility owned | Injection Molding, Extrusion |
| Japan | 42,000 | 1 facility owned | Injection Molding |

ITEM 3. LEGAL PROCEEDINGS

We are not a party to any material pending legal proceedings.

ITEM 4. SUBMISSION OF MATTERS TO VOTE OF SECURITY HOLDERS

No matters were submitted to a vote of security holders, through the solicitation of proxies or otherwise, during the fourth quarter of the fiscal year covered by this report.

## PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON STOCK AND RELATED STOCKHOLDER MATTERS

The Company's Common Shares, $\$ 0.01$ par value, has been traded on The Nasdaq National Market(R) (Nasdaq) under the symbol "ENTG" since our initial public offering on July 11, 2000. The following table sets forth the high and low sales prices, as reported by Nasdaq, for the periods indicated.

| Fiscal 2000 | High | Low |
| :---: | :---: | :---: |
| First Quarter. | \$- | \$- |
| Second Quarter | \$- | \$- |
| Third Quarter | \$- | \$- |
| Fourth Quarter | \$15.25 | \$7.00 |

There were approximately 160 shareholder accounts of record on October 31, 2000, and the number of beneficial shareholders was estimated to be 7,000 .

## Use of Proceeds

The Company's Registration Statement on Form S-1 (Registration No. 333-33668) was declared effective on July 10, 2000. The Company sold 9,890,000 common shares at an initial public offering (IPO) price of $\$ 11.00$ per share, including $1,290,000$ shares pursuant to the exercise of the underwriters' over-allotment option. The Company received net proceeds of approximately $\$ 99.0$ million after deducting underwriting discounts, commissions and offering expenses. During the fourth quarter of fiscal 2000, the Company used $\$ 42$ million of the IPO proceeds to retire certain long-term debt and capital lease obligations. The Company intends to use the remaining net proceeds for working capital and general corporate purposes, including sales, marketing, customer support and other activities related to its business. The Company is currently assessing the specific uses and allocations for these funds.

The table that follows presents selected financial data for each of the last five fiscal years:

FINANCIAL HIGHLIGHTS

| (Dollars in thousands, except per share data) | 2000 | 1999 | 1998 | 1997 | 1996 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Net sales | \$343,465 | \$241,952 | \$266,591 | \$277,290 | \$271,037 |
| Gross profit | 164,705 | 91,850 | 109,658 | 115,558 | 121,995 |
| Operating profit | 76,371 | 14,945 | 24,635 | 35,188 | 47,158 |
| Net income | 50,575 | 5,729 | 13,083 | 16,934 | 28,672 |
| Earnings per common share-diluted (1): | 0.77 | 0.09 | 0.21 | 0.27 | 0.45 |
| Cash and cash equivalents | 102,973 | 16,411 | 8,235 | 11,354 | 11,251 |
| Total assets | 352,964 | 242,064 | 252,941 | 260,885 | 212,865 |
| Long-term debt and capital lease obligations | 10,822 | 53,830 | 73,242 | 75,971 | 61,916 |
| Shareholders' equity (1) | 268,040 | 124,683 | 118,399 | 109,382 | 82,703 |

(1) Per share figures and shareholders' equity figures presented give effect to the reclassification of redeemable Employee Stock Ownership Trust common shares no longer redeemable upon consummation of the Company's initial public offering in July 2000.

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

The information in this Management's Discussion and Analysis of Financial Condition and Results of Operations, except for the historical information, contains forward-looking statements. These statements are subject to risks and uncertainties. You should not place undue reliance on these forward-looking statements as actual results could differ materially. We do not assume any obligation to publicly release the results of any revision or updates to these forward-looking statements to reflect future events or unanticipated occurrences. This discussion and analysis should be read in conjunction with our Consolidated Financial Statements and the related Notes, which are included elsewhere in this report.

## Overview

Entegris, Inc. is a leading provider of materials integrity management solutions that protect and transport the critical materials used in the semiconductors and other high technology industries. We were incorporated in June 1999 to effect the business combination of Fluoroware, Inc. and EMPAK, Inc., which was accounted for as a pooling of interests. Accordingly, we issued common stock in exchange for $100 \%$ of the outstanding shares of both Fluoroware, which began operating in 1966, and EMPAK, which began business in 1980. The historical financial statements of Entegris are shown to include the historical accounts and results of operations of Fluoroware and EMPAK and their respective subsidiaries, as if the business combination had existed for all periods presented.

We derive our revenue from the sale of products to the microelectronics industry and recognize revenue upon the shipment of such goods to customers. Our cost of sales includes polymers and purchased components, manufacturing personnel, supplies and fixed costs related to depreciation and operation of facilities and equipment. Our customers consist primarily of semiconductor manufacturers and semiconductor equipment and materials suppliers. We serve our customers through various subsidiaries and sales and distribution relationships in the United States, Asia and Europe.

Our fiscal year is a 52- or 53 -week period ending on the last Saturday of August. Our last three fiscal years ended on the following dates: August 29, 1998, August 28, 1999 and August 26, 2000. Fiscal years are identified in this report according to the calendar year in which they end. For example, the fiscal year ended August 26, 2000 is referred to as "fiscal 2000."

Our results in fiscal 1998 and 1999 were affected by downturns in the semiconductor industry. In response to these downturns, we reduced personnel and variable expenses. We also consolidated manufacturing operations by combining the activities of two of our facilities into one, which allowed the Company to reduce infrastructure support costs and eliminate duplicate production equipment. In the second half of fiscal 1999, the semiconductor industry began to recover from the downturn. This recovery, which continued through fiscal 2000, has led to greatly improved net sales and profitability.

The following table sets forth the relationship between various components of operations, stated as a percent of net sales, for each of the periods indicated. Our historical financial data for fiscal 2000, 1999 and 1998 were derived from, and should be read in conjunction with, our audited consolidated financial statements and the related notes included elsewhere in this annual report.

|  | Percent of Net Sales |  |  |
| :---: | :---: | :---: | :---: |
|  | 2000 | 1999 | 1998 |
| Net sales | 100.0 | 100.0 | 100.0 |
| Cost of sales | 52.0 | 62.0 | 58.9 |
| Gross profit | 48.0 | 38.0 | 41.1 |
| Selling, general and administrative expenses | 21.3 | 25.8 | 24.4 |
| Engineering, research and development expenses | 4.4 | 6.0 | 7.5 |
| Operating profit | 22.2 | 6.2 | 9.2 |
| Interest expense, net | 0.7 | 2.3 | 2.6 |
| Other income, net | (1.4) | (0.8) | (0.1) |
| Income before income taxes and other items below | 23.0 | 4.7 | 6.7 |
| Income tax expense | 8.3 | 1.8 | 1.7 |
| Equity in net (income) loss of affiliates | (0.5) | 0.7 | -- |
| Minority interest | 0.1 | (0.2) | 0.1 |
| Income before extraordinary item | 15.1 | 2.4 | 4.9 |
| Extraordinary loss on extinguishment of debt, net of taxes | (0.3) | -- | -- |
| Net income | 14.7 | 2.4 | 4.9 |

Net sales. Net sales increased $\$ 101.5$ million, or $42 \%$, to $\$ 343.5$ million in fiscal 2000, compared to $\$ 242.0$ million in fiscal 1999. The improvement reflected the increase in product sales associated with the sustained recovery in the semiconductor industry that began in the second half of fiscal 1999. Revenue gains were recorded in all geographic regions and across all product lines. Sales of Fluid Handling products grew by 77\% and Microelectronics product sales increased by $31 \%$. International sales accounted for approximately $48 \%$ of net sales in fiscal 2000, essentially unchanged from fiscal 1999.

Gross profit. Gross profit in fiscal 2000 increased by $\$ 72.9$ million to $\$ 164.7$ million, an increase of $79 \%$ over the $\$ 91.9$ million reported in fiscal 1999 . The gross margin for fiscal 2000 improved to $48.0 \%$ compared to $38.0 \%$ for fiscal 1999. Gross margin and gross profit improvements were reported by both domestic and international operations. The improvements in fiscal 2000 reflected the improved utilization of our production capacity associated with the higher sales levels noted above, a more favorable product mix and the benefits of integrating various elements of our manufacturing operations. A $\$ 4.3$ million reduction in our last-in, first-out (LIFO) inventory reserve, also reflecting the improved utilization of production capacity, also contributed to higher gross profit and gross margin. Partly offsetting the factors underlying the improvement in gross profit was $\$ 5.9$ million in asset impairment charges, compared to $\$ 2.0$ million in fiscal 1999, mainly for asset write-offs of molds that were determined to have no future use.

Selling, general and administrative expenses. Selling, general and administrative (SG\&A) expenses increased $\$ 11.0$ million, or $18 \%$, to $\$ 73.3$ million in fiscal 2000 from $\$ 62.3$ million in fiscal 1999. The increase was due to higher commissions and incentive compensation as well as higher expenditures for personnel and information systems. SG\&A costs also increased due to the accrual of $\$ 2.5$ million in fiscal 2000 for charitable contributions, reflecting our commitment to contribute 5\% of fiscal 2000 net income to charitable organizations. These increases were partly offset by the absence of $\$ 3.6$ million in merger-related costs incurred in fiscal 1999. SG\&A costs, as a percent of net sales, decreased to $21.3 \%$ from $25.8 \%$ primarily due to increased net sales.

Engineering, research and development expenses. Engineering, research and development expenses increased $3 \%$, to $\$ 15.0$ million in fiscal 2000 from $\$ 14.6$ million in fiscal 1999. Engineering, research and
development costs, as a percent of net sales, decreased to 4.4\% from 6.0\% due mainly to increased net sales.

Interest expense, net. Net interest expense decreased 56\% to $\$ 2.4$ million in fiscal 2000 compared to $\$ 5.5$ million in the comparable period a year ago. The decrease reflected the reduction of domestic borrowings and the short-term investment of available cash balances. These actions occurred most notably in the fourth quarter when the Company received proceeds of $\$ 99.0$ million from its initial public offering, $\$ 42$ million of which was used to retire long-term debt and capital lease obligations.

Other income, net. Other income was $\$ 4.9$ million in fiscal 2000 compared to other income of $\$ 1.9$ million in fiscal 1999. The increase was primarily due to the $\$ 5.5$ million gain recognized on the sale of approximately 612,000 shares of its investment in Metron Technology N.V. (Metron) as part of Metron's initial public offering in November 1999. Other income in fiscal 2000 also included losses on sales of property and equipment offset by gains from foreign exchange translation.

Income tax expense. Income tax expense of $\$ 28.4$ million was significantly higher in fiscal 2000 compared to $\$ 4.4$ million in income tax expense reported for fiscal 1999, primarily reflecting significantly higher income. The effective tax rate in fiscal 2000 was $36.0 \%$ compared to $38.8 \%$ in fiscal 1999. The lower rate reflected the Company's ability to utilize foreign tax credit carryforwards.

Equity in net (income) loss of affiliates. Our equity in the net income of affiliates was $\$ 1.7$ million in fiscal 2000. Our equity in the net loss of affiliates was $\$ 1.6$ million in fiscal 1999. This improvement primarily reflects the operating results of Metron, which also benefited from the improved industry conditions affecting our results.

Extraordinary loss on extinguishment of debt. During the fourth quarter, the Company incurred prepayment costs of $\$ 1.8$ million $(\$ 1.1$ million after taxes, or $\$ 0.02$ per share) in connection with repayment of $\$ 42$ million of long-term debt and capital lease obligations.

Net income. Net income increased to $\$ 50.6$ million in fiscal 2000 , compared to net income of $\$ 5.7$ million in fiscal 1999. After the market value adjustment related to redeemable common stock, the net income applicable to nonredeemable common shareholders was $\$ 2.0$ million, or $\$ 0.04$ per share diluted, in fiscal 2000, compared to a net loss applicable to nonredeemable common shareholders of $\$ 93.0$ million, or $\$ 2.53$ per share, in fiscal 1999. Excluding the effect of the market value adjustment related to redeemable common stock, pro forma earnings per share improved from $\$ 0.09$ per share in fiscal 1999 to $\$ 0.77$ in fiscal 2000.

Fiscal Year Ended August 31, 1999 Compared to Fiscal Year Ended August 31, 1998
Net sales. Net sales decreased $\$ 24.6$ million, or $9 \%$ to $\$ 242.0$ million in fiscal 1999 from $\$ 266.6$ million in fiscal 1998. The revenue decline was primarily associated with the slowdown experienced in the semiconductor industry and reflected lower sales in all major product lines and geographic areas, primarily in the United States. International sales accounted for $48 \%$ of sales in fiscal 1999 compared to 45\% in fiscal 1998.

Gross profit. Gross profit in fiscal 1999 declined by $\$ 17.8$ million to $\$ 91.9$ million, a decrease of $16 \%$ from $\$ 109.7$ million in fiscal 1998. Gross margin for fiscal 1999 decreased to $38.0 \%$ compared to $41.1 \%$ in fiscal 1998. The primary factor underlying the gross margin decline was the reduced utilization of our production capacity resulting from lower sales levels in fiscal 1999, as well as a less favorable product mix. A moderate expansion in production capacity also contributed to the drop in gross margin. Fiscal 1999 costs included $\$ 2.0$ million associated with the business combination of Fluoroware and EMPAK.

Selling, general and administrative expenses. Selling, general and administrative expenses decreased $\$ 2.8$ million, or $4 \%$, to $\$ 62.3$ million in fiscal 1999 from $\$ 65.1$ million in fiscal 1998. Fiscal 1999 costs included expenses of $\$ 3.6$ million associated with the business combination as well as higher information systems costs. These increases were offset by improvements related to headcount reductions and lower incentive compensation. SG\&A costs, as a percent of net sales, increased to $25.8 \%$ from $24.4 \%$ primarily due to the decline in net sales and one-time business combination expenses.

Engineering, research and development expenses. Engineering, research and development expenses decreased $\$ 5.3$ million, or $27 \%$, to $\$ 14.6$ million in fiscal 1999 from $\$ 19.9$ million in fiscal 1998. The decrease was due to lower personnel costs associated with personnel reductions related to the semiconductor downturn, as well as reduced product sampling and development expenditures. Engineering, research and development costs, as a percentage of net sales, decreased to 6.0\% from 7.5\% due to both increased net sales and reduced costs.

Interest expense, net. Net interest expense decreased $21 \%$ to $\$ 5.5$ million in fiscal 1999 compared to $\$ 7.0$ million in fiscal 1998. The decrease reflected reduced borrowings.

Other income, net. Other income was $\$ 1.9$ million in fiscal 1999 compared to $\$ 0.3$ million in fiscal 1998. The increase primarily reflected a $\$ 2.0$ million difference in foreign currency translation gains.

Income tax expense. Income tax expense decreased slightly in fiscal 1999 compared to fiscal 1998. Our effective tax rate was $38.8 \%$ in fiscal 1999 compared to $25.3 \%$ in fiscal 1998 , which reflected the benefit of tax deductions related to international operations not recognized in prior years.

Equity in net loss of affiliates. Our equity in the net loss of affiliates was \$1.6 million in fiscal 1999 compared to $\$ 0.1$ million in fiscal 1998. This decline reflected the operating results of Metron, which reflected many of the same declining industry conditions affecting our results.

Net income. Net income decreased $\$ 7.4$ million, or $56 \%$, to $\$ 5.7$ million in fiscal 1999 from $\$ 13.1$ million in fiscal 1998. After the market value adjustment related to redeemable common stock, the net loss applicable to nonredeemable common shareholders in fiscal 1999 was $\$ 93.0$ million, or $\$ 2.53$ per share, compared to net income applicable to nonredeemable common shareholders of $\$ 40.3$ million, or $\$ 0.21$ per share, in fiscal 1998. Excluding the effect of the market value adjustment related to redeemable common stock, pro forma earnings per share fell from $\$ 0.21$ in fiscal 1998 to $\$ 0.09$ in fiscal 1999.

Quarterly Results of Operations
The following tables present selected data from the Company's
consolidated statements of operations in thousands of dollars and as a percent of net sales for the eight quarters ended August 26, 2000.

STATEMENT OF RESULTS DATA:

|  | Fiscal 1999 |  |  | Fiscal 2000 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Dollars in thousands: |  |  |  |  |  |  |  |  |
| Net sales. | \$51,466 | \$60,124 | \$60,585 | \$69,777 | \$71,816 | \$84,846 | \$90,991 | \$95,812 |
| Gross profit | 17,091 | 22,473 | 24,737 | 27,549 | 31,667 | 39,349 | 44,173 | 49,516 |
| Selling, general and administrative expenses. | 14,110 | 14,786 | 13,897 | 19,548 | 15,034 | 18,631 | 19,913 | 19,715 |
| Engineering, research and development expenses..... | 4,379 | 3,192 | 3,345 | 3,649 | 3,503 | 3,642 | 3,468 | 4,428 |
| Operating profit (loss). | $(1,398)$ | 4,495 | 7,496 | 4,353 | 13,130 | 17,076 | 20,792 | 25,373 |
| Net income (loss) before extraordinary item...... | \$ (1, 650) | \$ 1,750 | \$ 2,433 | \$ 3,197 | \$12,045 | \$11,068 | \$12,319 | \$16,292 |
|  | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Percent of Net Sales: |  |  |  |  |  |  |  |  |
| Net sales | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Gross profit. | 33.2 | 37.4 | 40.8 | 39.5 | 44.1 | 46.4 | 48.5 | 51.7 |
| Selling, general and administrative expenses. | 27.4 | 24.6 | 22.9 | 28.0 | 20.9 | 22.0 | 21.9 | 20.6 |
| Engineering, research and development expenses..... | 8.5 | 5.3 | 5.5 | 5.2 | 4.9 | 4.3 | 3.8 | 4.6 |
| Operating profit (loss). | (2.7) | 7.5 | 12.4 | 6.2 | 18.3 | 20.1 | 22.9 | 26.5 |
| Net income (loss). | (3.2) | 2.9 | 4.0 | 4.6 | 16.8 | 13.0 | 13.5 | 17.0 |

This unaudited information has been prepared on the same basis as our audited consolidated financial statements appearing elsewhere in this annual report. All adjustments which management considers necessary for the fair presentation of the unaudited information have been included in the quarters presented. The results for any quarter are not necessarily indicative of the results to be expected for the entire year or any future period.

Over the past eight quarters, we have generally reported improved net sales and net income, primarily resulting from improved conditions in the semiconductor industry. Gross profits have increased due to higher sales, improved utilization of our production capacity and a more favorable product sales mix. Many of our customers opened or upgraded facilities in fiscal 2000, which resulted in a significant increase in the sale of chemical delivery and wafer handling products.

Cost of sales and selling, general and administrative expenses in the fourth quarter of fiscal 1999 included $\$ 2.0$ million of asset impairment charges and $\$ 3.6$ million, respectively, in expenses associated with the business combination. Net income in the first quarter of fiscal 2000 included a $\$ 5.5$ million gain recognized on the sale of approximately 612,000 shares of our investment in Metron stock

Our quarterly results of operations have been, and will likely continue to be, subject to significant fluctuations due to a variety of factors, including, among others: economic conditions in the semiconductor industry; size, timing and shipment of customer orders; timing of announcements or introductions by us or our competitors of new products and product upgrades or enhancements; exchange rate fluctuations; price competition; our ability to design, introduce and manufacture new products on a cost effective and timely basis; and other factors, a number of which are beyond our control.

## Liquidity and Capital Resources

We have historically financed our operations and capital requirements through cash flow from operating activities, long-term loans, and lease financing (some of which are secured by property and equipment) and borrowings under domestic and international short-term lines of credit. In fiscal 2000, we raised capital via an initial public offering.

Operating activities. Cash flow provided by operating activities totaled $\$ 64.1$ million, $\$ 43.4$ million and $\$ 45.9$ million in fiscal 2000, 1999 and 1998, respectively. Net income and noncash charges, such as depreciation, primarily accounted for the cash flow generated by operations in all years. In fiscal 2000, these items were partly offset by higher working capital requirements, principally related to accounts receivable growth of $\$ 22.5$ million. Fiscal 1999 and 1998 operating cash flows benefited from reductions in working capital. Our working capital stood at $\$ 158.5$ million and $\$ 48.9$ million at the end of fiscal 2000 and 1999, respectively.

Investing activities. Cash flow used in investing activities totaled \$15.8 million, $\$ 9.3$ million and $\$ 34.0$ million in fiscal 2000,1999 and fiscal 1998 , respectively. Acquisition of property and equipment, the main component of cash flow used in investing activities, totaled $\$ 21.4$ million, $\$ 10.1$ million and $\$ 33.5$ million in fiscal 2000,1999 and 1998 , respectively. Significant capital expenditures in fiscal 2000 included additions of manufacturing equipment and the upgrading and integration of information systems. We plan capital expenditures of approximately $\$ 35$ million during fiscal 2001, consisting mainly of spending on manufacturing equipment and information systems.

In fiscal 2000, we received $\$ 7.4$ million from the sale of 612,000 shares of our investment in Metron Technology N.V., leaving us with ownership of approximately 2.7 million shares, or $20.3 \%$ of total Metron shares outstanding.

Financing activities. Cash provided by financing activities totaled \$38.3 million in fiscal 2000, while cash used in financing activities was $\$ 27.1$ million and $\$ 14.9$ million in fiscal 1999 and 1998, respectively.

During the fourth quarter of fiscal 2000 , we completed a registered underwritten initial public offering. We issued 9,890,000 common shares at $\$ 11$ per share, receiving net proceeds of $\$ 99.0$ million after underwriting and issuance costs. Certain of our shareholders also sold 5,060,000 shares.

In fiscal 2000, we eliminated our use of domestic short-term borrowings and capital lease obligations and made scheduled payments on our long-term borrowings. We retired $\$ 42$ million in long-term debt and capital lease obligations in the fourth quarter using a portion of the proceeds from the initial public offering In fiscal 1999 and 1998 , we also paid down outstanding debt with cash flow from operations not used for investing purposes.

We repurchased common shares for $\$ 10.4$ million, $\$ 1.1$ million and $\$ 2.6$ million in fiscal 2000, fiscal 1999 and fiscal 1998, respectively, primarily in connection with the redemption of common stock from our Employee Stock Ownership Plan.

As of August 26, 2000, our sources of available funds comprised $\$ 103.0$ million in cash and cash equivalents and various credit facilities. We have unsecured revolving commitments with two commercial banks with aggregate borrowing capacity of $\$ 30.0$ million, with no borrowings outstanding at August 26, 2000. We also have lines of credit, equivalent to an aggregate $\$ 11.9$ million with six international banks, which provide for borrowings of German deutsche marks, Malaysian ringgits and Japanese yen for our overseas subsidiaries. Borrowings outstanding on these lines of credit were $\$ 8.3$ million at August 26, 2000.

We believe that our cash and cash equivalents, cash flow from operations and available credit facilities will be sufficient to meet our working capital and investment requirements for the next twelve months. However, our future growth, including potential acquisitions, may require additional funding, and from time to time we may need to raise capital through additional equity or debt financing. If we were unable to obtain this additional funding, we might have to curtail our expansion or acquisition plans. There can be no assurance that any such financing would be available to us on commercially acceptable terms.

## Recently Issued Accounting Pronouncements

In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards (SFAS) No. 133, "Accounting for Derivative Instruments and Hedging Activities." This statement, as amended, requires companies to record derivatives on the balance sheet as assets or liabilities, measured at fair value. Gains or losses resulting from changes in the values of those derivatives would be accounted for depending on the use of the derivative and whether it qualifies for hedge accounting. SFAS No. 133 will be effective for us beginning in the first quarter of fiscal 2001. Adoption of SFAS No. 133 is not expected to materially impact our financial position or results of operations.

In December 1999, the Securities and Exchange Commission released Staff Accounting Bulletin (SAB) No. 101, "Revenue Recognition in Financial Statements", which provides guidance on the recognition, presentation, and disclosure of revenue in financial statements. Based on a review of our revenue recognition policy and practices, the Company believes that it is in conformity with the provisions of SAB No. 101.

Quantitative and Qualitative Disclosure About Market Risks
Our principal market risks are sensitivities to interest rates and foreign currency exchange rates. Our exposure to interest rate fluctuations is not significant. Most of our outstanding debt at August 26, 2000 carried fixed rates of interest. All of our short-term investments are debt instruments that mature in three months or less.

We use derivative financial instruments to manage foreign currency exchange rate risk associated with the sale of products from the United States when such sales are denominated in currencies other than the U.S. dollar. The cash flows and earnings of our foreign-based operations are also subject to fluctuations in foreign exchange rates. A hypothetical $10 \%$ change in the foreign currency exchange rates would increase or decrease our net income by approximately $\$ 2$ million.

Our cash flows and earnings are also subject to fluctuations in foreign exchange rates due to investments in foreign-based affiliates. Investments in affiliates includes our $20.3 \%$ interest in Metron. Metron attempts to limit its exposure to changing foreign currency exchange rates through operational and financial market actions. Products are sold in a number of countries throughout the world resulting in a diverse portfolio of transactions denominated in foreign currencies. Metron manages certain short-term foreign currency exposures by the purchase of forward contracts to offset the earnings and cash flow impact of foreign currency denominated receivables and payables.

Our investment in Metron is accounted for by the equity method of accounting and has a carrying value on the balance sheet of approximately $\$ 14.5$ million. The fair value of Metron is subject to stock market fluctuations. Based on the closing stock price of Metron on August 26, 2000, the fair value of our investment in Metron was approximately $\$ 33.1$ million.

Our financial statements are prepared on a historical cost basis, which does not completely account for the effects of inflation. However, since the cost of $81 \%$ of our inventories is determined using the LIFO method of accounting, cost of sales, except for depreciation expense included therein, generally reflects current costs. The cost of polymers, our primary raw material, was essentially unchanged from a year ago. We expect the cost of resins to remain stable in the foreseeable future. Labor costs, including taxes and fringe benefits, rose modestly in fiscal 2000, and moderate increases also can be reasonably anticipated for fiscal 2001.

Forward-Looking Statements
The information in this Management's Discussion and Analysis of Financial Condition and Results of Operations, except for the historical information, contains forward-looking statements. In addition, when used in this report, the words "anticipate", "plan", "believe", "estimate", "except" and similar expressions as they relate to us or our management are intended to identify forward-looking statements. All forward-looking statements involve risks and uncertainties. You should not place undo reliance on these forward-looking statements, as actual results could differ materially from expected or historical results. We do not assume any obligation to publicly release the results of any revision or updates to these forward-looking statements to reflect future events or unanticipated occurrences. Additional information about these risks and uncertainties have been identified by Company in the Company's Annual Report on Form $10-\mathrm{K}$, which will be filed on or before November 24, 2000.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK
See information/discussion appearing under the subcaption "Quantitative and Qualitative Disclosure About Market Risks" of Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA
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We have audited the accompanying consolidated balance sheets of Entegris, Inc. and subsidiaries as of August 26, 2000 and August 28, 1999, and the related consolidated statements of operations, shareholders' equity (deficit) and cash flows for each of the years in the three-year period ended August 26, 2000. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We did not audit the 1998 financial statements of Empak, Inc., a wholly-owned subsidiary, which statements reflect total revenues constituting $40 \%$ of total consolidated revenues in 1998. Those statements were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for Empak, Inc., is based solely on the report of the other auditors.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards 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. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits and the report of the other auditors provide a reasonable basis for our opinion.

In our opinion, based on our audits and the report of the other auditors, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Entegris, Inc. and subsidiaries as of August 26, 2000 and August 28, 1999, and the results of their operations and their cash flows for each of the years in the three-year period ended August 26, 2000 in conformity with accounting principles generally accepted in the United States of America.


See the accompanying notes to consolidated financial statements.

## Years ended

|  | August 26, 2000 | 28, 1999 | August 29, 1998 |
| :---: | :---: | :---: | :---: |
| Sales to non-affiliates. | \$245,286 | \$195,421 | \$216,852 |
| Sales to affiliates. | 98,179 | 46,531 | 49,739 |
| Net sales... | 343,465 | 241,952 | 266,591 |
| Cost of sales. | 178,760 | 150,102 | 156,933 |
| Gross profit. | 164,705 | 91,850 | 109,658 |
| Selling, general and administrative expenses | 73,293 | 62,340 | 65,111 |
| Engineering, research and development expenses | 15,041 | 14,565 | 19,912 |
| Operating profit. | 76,371 | 14,945 | 24,635 |
| Interest expense, net | 2,422 | 5,498 | 6,995 |
| Other income, net. | $(4,945)$ | $(1,850)$ | (273) |
| Income before income taxes and other items below.. | 78,894 | 11,297 | 17,913 |
| Income tax expense. | 28,375 | 4,380 | 4,536 |
| Equity in net (income) loss of affiliates. | $(1,694)$ | 1,587 | 118 |
| Minority interest in subsidiaries' net income (loss) | 489 | (399) | 176 |
| Income before extraordinary item................... | 51,724 | 5,729 | 13,083 |
| Extraordinary loss on extinguishment of debt, net of taxes | $(1,149)$ | -- | -- |
| Net income. | 50,575 | 5,729 | 13,083 |
| Market value adjustment to redeemable common stock | $(48,602)$ | $(98,754)$ | 27,170 |
| Net income (loss) applicable to nonredeemable common shareholders............................. | \$1,973 | \$ 93,025 ) | \$40,253 |

Earnings (loss) per nonredeemable common share:
Basic

| Income (loss) before extraordinary item. | \$ 0.07 | \$ (2.53) | \$ 1.10 |
| :---: | :---: | :---: | :---: |
| Extraordinary loss on extinguishment of debt, net of taxes..................................... | (0.03) | -- |  |

Net income (loss)............................... \$ 0.05 (2.53) 1.10

Diluted


See the accompanying notes to consolidated financial statements.

| Common |  | Accumulated |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Shares Common | Paid-in | Retained Comprehensive |  | Comprehensive |
| Outstanding Stock | Capital | Earnings Income (Loss) | Total | income |


| Balance at August 30, 1997 | 18,208 | \$182 | \$14,767 | \$18,239 | \$(531) |  | \$32,657 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Repurchase and retirement of shares | (143) | (1) | -- | (928) |  | -- | (929) |  |
| Shares issues pursuant to stock options exercised. $\qquad$ exercised. | 295 | 3 | 299 | -- |  | -- | 302 |  |
| Market value adjustment to redeemable ESOT common stock.... | -- | -- | -- | 27,170 |  | -- | 27,170 |  |
| Foreign currency translation adjustment.......................... |  | -- | -- | -- |  | $(1,622)$ | $(1,622)$ | \$ $(1,622)$ |
| Decrease in unrealized holding gain on marketable securities... | -- | -- | -- | -- |  | (168) | (168) | (168) |
| Net income......................... | -- | -- | -- | 13,083 |  | -- | 13,083 | 13,083 |
| Total comprehensive income... |  |  |  |  |  |  |  | \$11,293 |
| Balance at August 29, 1998. | 18,360 | 184 | 15,066 | 57,564 |  | $(2,321)$ | 70,493 |  |
| Repurchase and retirement of shares | (6) | -- | -- | (20) |  | -- | (20) |  |
| Dilution of ownership on equity investment. | -- | -- | -- | (588) |  | -- | (588) |  |
| Market value adjustment to redeemable ESOT common stock.... | -- | -- | -- | $(98,754)$ |  | -- | $(98,754)$ |  |
| Foreign currency translation adjustment.......................... | -- | -- | -- | -- |  | 1,792 | 1,792 | \$ 1,792 |
| Increase in unrealized holding gain on marketable securities... marketable securities......... | -- | -- | -- | -- |  | 461 | 461 | 461 |
| Net income. | -- | -- | -- | 5,729 |  | -- | 5,729 | 5,729 |
| Total comprehensive income....... |  |  |  |  |  |  |  | \$ 7,982 |
| Balance at August 28, 1999. | 18,354 | 184 | 15,066 | $(36,069)$ |  | (68) | $(20,887)$ |  |
| Repurchase and retirement of shares | (13) | -- | -- | (89) |  | - | (89) |  |
| Shares issued pursuant to stock options exercised. $\qquad$ | 76 | -- | 362 | -- |  | -- | 362 |  |
| Dilution of ownership on investments........................ . . | -- | -- | -- | 3,764 |  | -- | 3,764 |  |
| Market value adjustment to redeemable ESOT common stock.... | -- | -- | -- | $(48,602)$ |  | -- | $(48,602)$ |  |
| Reclassification of ESOT shares upon consummation of initial public offering. $\qquad$ | 21,621 | 216 | (108) | 183,708 |  | -- | 183,816 |  |
| Shares issued pursuant to public offering, net of issuance costs. | 9,890 | 99 | 98,867 | -- |  | -- | 98,966 |  |
| Stock split adjustment............ | 18,389 | 184 | (184) | -- |  | -- | -- |  |
| Foreign currency translation adjustment. . . . . . . . . . . . . . . . . . . . . | -- | -- | -- | -- |  | (63) | (63) | \$ (63) |
| Increase in unrealized holding gain on marketable securities... | -- | -- | -- | -- |  | 198 | 198 | 198 |
| Net income | -- | -- | -- | 50,575 |  | -- | 50,575 | 50,575 |
| Total comprehensive income....... |  |  |  |  |  |  |  | \$50,710 |
| Balance at August 26, 2000 ........... | 68,317 | \$683 | \$114,003 | \$153,287 |  | \$ 67 | \$268,040 |  |

See the accompanying notes to consolidated financial statements.

ENTEGRIS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Dollars in thousands)

|  |  |  | nded |  |
| :---: | :---: | :---: | :---: | :---: |
|  | August 26, 2000 |  | August 28, 1999 | August 29, 1998 |
| Operating Activities: |  |  |  |  |
| Net income..... | \$ | 50,575 | \$ 5,729 | \$13,083 |
| Adjustments to reconcile net income to net cash provided by operating activities: |  |  |  |  |
| Depreciation and amortization........................ |  | 27,246 | 28,810 | 26,591 |
| Asset impairment. |  | 5,937 | 1,996 | 425 |
| Provision for doubtful accounts |  | 1,493 | 213 | 57 |
| Provision for deferred income taxes |  | 382 | 1,296 | 667 |
| Stock option compensation expense. |  | 150 | -- | -- |
| Equity in net (income) loss of affiliates |  | $(1,694)$ | 1,587 | 118 |
| Loss (gain) on sale of property and equipment |  | 811 | 543 | (360) |
| Gain on sale of investment in affiliate... |  | $(5,468)$ | -- | -- |
| Minority interest in subsidiaries' net income (loss). |  | 489 | (399) | 176 |
| Changes in operating assets and liabilities: |  |  |  |  |
| Trade accounts receivable. |  | $(9,620)$ | $(3,069)$ | 7,983 |
| Trade accounts receivable due from affiliates |  | $(12,841)$ | $(2,560)$ | 113 |
| Inventories. |  | $(6,279)$ | 1,888 | 7,122 |
| Accounts payable and accrued liabilities |  | 15,251 | 3,520 | $(11,685)$ |
| Other current assets. |  | 396 | 152 | 5,457 |
| Accrued income taxes |  | $(2,453)$ | 3,925 | $(4,094)$ |
| Other. |  | (246) | (222) | 256 |
| Net cash provided by operating activities |  | 64,129 | 43,409 | 45,909 |
| Investing Activities: |  |  |  |  |
| Acquisition of property and equipment. |  | $(21,376)$ | $(10,079)$ | $(33,512)$ |
| Purchase of intangible assets.. |  | $(2,448)$ | (621) | (618) |
| Proceeds from sales of property and equipment |  | 713 | 1,285 | 343 |
| Proceeds from sale of investment in affiliate |  | 7,398 | -- |  |
| (Decrease) increase in investment in affiliates |  | (76) | 159 | (213) |
| Net cash used in investing activities |  | $(15,789)$ | $(9,256)$ | $(34,000)$ |
| Financing Activities: |  |  |  |  |
| Principal payments on short-term borrowings and long-term debt. |  | $(52,466)$ | $(32,339)$ | $(28,567)$ |
| Proceeds from short-term borrowings and long-term debt. |  | 2,028 | 6,382 | 15,895 |
| Issuance of common stock.. |  | 99,179 | -- | 302 |
| Repurchase of redeemable and nonredeemable common stock |  | $(10,446)$ | $(1,110)$ | $(2,578)$ |
| Net cash provided by (used in) financing activities $\qquad$ |  | 38,295 | $(27,067)$ | $(14,948)$ |
| Effect of exchange rate changes on cash and cash equivalents. |  | (73) | 1,090 | (80) |
| Increase (decrease) in cash and cash equivalents. $\qquad$ |  | 86,562 | 8,176 | $(3,119)$ |
| Cash and cash equivalents at beginning of period. |  | 16,411 | 8,235 | 11,354 |
| Cash and cash equivalents at end of period. |  | 102,973 | \$16,411 | \$ 8,235 |

See accompanying notes to consolidated financial statements.

## (1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation and Basis of Presentation Entegris, Inc. (the Company) is a leading provider of materials integrity management solutions that protect and transport the critical materials used in the semiconductor and other high technology industries. The accompanying consolidated financial statements include the accounts of the Company and its majority-owned subsidiaries. The Company accounts for its investment in its $20.3 \%$ owned affiliate, Metron Technology N.V. (Metron), using the equity method. The Company's investment in Metron is accounted for using a three-month lag due to Metron's May year end. Intercompany profits, transactions and balances have been eliminated in consolidation. Certain amounts reported in previous years have been reclassified to conform to the current year's presentation.

The Company's fiscal year is a 52 or 53 week period ending on the last Saturday in August. Fiscal years 2000, 1999 and 1998 ended on August 26, 2000, August 28, 1999 and August 29, 1998, respectively.

Business Combination On June 7, 1999, Fluoroware, Inc. and EMPAK, Inc. completed a business combination which resulted in the formation of Entegris, Inc., a corporation formed for the purpose of effecting the business combination. The Company issued 36 million shares and 24 million shares of its common stock in exchange for $100 \%$ of the outstanding shares of Fluoroware, Inc. and EMPAK, Inc., respectively.

For financial reporting purposes, the business combination has been recorded using the pooling-of-interests method of accounting under accounting principles generally accepted in the United States. Accordingly, the historical financial statements of Entegris, Inc. include the historical accounts and results of operations of Fluoroware, Inc. and EMPAK, Inc. as if the business combination had been in effect for all periods presented.

The results of operations for 1999 and 1998 for the separate companies and combined amounts presented in the consolidated financial statements are as follows (in thousands):


Adjustments to conform the companies' methods of depreciation reduced combined net income for 1999 and 1998 by approximately $\$ 1.9$ million and $\$ 0.5$ million, respectively.

Expenses related to the business combination were approximately $\$ 3.6$ million for 1999, of which approximately $\$ 0.9$ million and $\$ 2.6$ million is in accrued liabilities at August 26, 2000 and August 28, 1999, respectively. In addition, the Company recorded asset impairment charges related to the business combination of approximately $\$ 1.3$ million during 1999.

Cash and Cash Equivalents Cash and cash equivalents include cash on hand, demand deposits, and short-term investments with original maturities of three months or less.

Inventories Inventories are stated at the lower of cost or market. Cost is determined by the last-in, first-out (LIFO) method for approximately $81 \%$ and $73 \%$ of total inventories at August 26, 2000 and August 28, 1999, respectively. Inventories not valued at LIFO are recorded using the first-in, first-out (FIFO) method.

Property, Plant, and Equipment Property, plant, and equipment are carried at cost and are depreciated principally on the straight-line method. When assets are retired or disposed of, the cost and related accumulated depreciation are removed from the accounts, and gains or losses are recognized in the same period. Maintenance and repairs are expensed as incurred; significant renewals and betterments are capitalized.

Capitalized Software The Company capitalizes certain costs associated with significant software obtained and developed for internal use. Certain costs are capitalized when both the preliminary project stage is completed and management deems the project will be completed and used to perform the intended function. Capitalization of such costs ceases no later than the point at which the project is substantially complete and ready for its intended purpose.

Capitalized software costs are amortized over the estimated useful life of the project which is generally 4 to 5 years. Capitalized software of approximately $\$ 5.5$ million and $\$ 4.6$ million is included in office furniture and equipment as of August 26, 2000 and August 28, 1999, respectively.

Intangible Assets Patents, trademarks and goodwill are carried at cost, less accumulated amortization, and are being amortized over 5 to 17 year periods, using the straight-line method. Costs associated with bond and debt issuance are carried at cost, less accumulated amortization, and are being amortized on a straight-line basis over the life of the applicable bond or debt instrument, which is 10 to 15 years.

The carrying value of intangible assets is reviewed when circumstances suggest that there has been possible impairment. If this review indicates that intangible assets will not be recoverable based on the projected/estimated undiscounted net cash flows over the remaining amortization period, the carrying value of intangible assets is reduced to estimated fair value.

Investments in Marketable Securities Certain of the Company's investments are classified as available-for-sale, and accordingly, any unrealized holding gains and losses, net of taxes, are excluded from income, and recognized as a separate component of shareholders' equity until realized. Fair market value of the securities is determined based on published market prices. At August 26, 2000 and August 28, 1999, the gross unrealized gains on marketable securities were \$0.7 million and $\$ 0.5$ million, respectively.

Foreign Currency Translation/Foreign Currency Contracts Except for certain foreign subsidiaries whose functional currency is the United States dollar, assets and liabilities of foreign subsidiaries are translated from foreign currencies into U.S. dollars at current exchange rates. Income statement amounts are translated at the weighted average exchange rates for the year. Gains and losses resulting from foreign currency transactions are included in net income. For certain foreign subsidiaries whose functional currency is the U.S. dollar, currency gains and losses resulting from translation are determined using a combination of current and historical rates and are reported as a component of net income.

The Company periodically enters into forward foreign currency contracts to reduce certain exposures relating to rate changes in foreign currency. These contracts are subject to gains or losses from changes in foreign currency rates, however, any realized gain or loss will be offset by gains or losses on the underlying hedged foreign currency transactions. Certain exposures to credit losses related to counterparty nonperformance exist, however, the Company does not anticipate nonperformance by the counterparties as they are large, well-established financial institutions. The fair values of the Company's forward hedging instruments discussed below are estimated based on prices quoted by financial institutions for these instruments. The Company was a party to forward foreign currency contracts with notional amounts of $\$ 2.0$ million and $\$ 1.6$ million at August 26,2000 and August 28, 1999, respectively.

Revenue Recognition/Concentration of Risk Revenue and the related cost of sales are recognized upon shipment of the products. The Company provides for estimated returns and warranty obligations when the revenue is recorded. The Company sells its products to semiconductor manufacturing companies throughout the world. The Company performs continuing credit evaluations of its customers and generally does not require collateral. Letters of credit may be required from its customers in certain circumstances. The Company maintains an allowance for doubtful accounts which management believes is adequate to cover any losses on trade receivables.

Certain of the materials included in the Company's products are obtained from a single source or a limited group of suppliers. Although the Company seeks to reduce dependence on those sole and limited source suppliers, the partial or complete loss of certain of these sources could have at least a temporary adverse effect on the Company's results of operations. Furthermore, a significant increase in the price of one or more of these components could adversely affect the Company's results of operations.

Income Taxes Deferred income taxes are provided in amounts sufficient to give effect to temporary differences between financial and tax reporting. The Company accounts for tax credits as reductions of income tax expense in the year in which such credits are allowable for tax purposes.

The Company utilizes the asset and liability method for computing its deferred income taxes. Under the asset and liability method, deferred tax assets and liabilities are based on the temporary difference between the financial statement and tax basis of assets and liabilities and the enacted tax rates expected to apply to taxable income in the years in which these temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

Long-lived Assets Long-lived assets and certain identifiable intangibles are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable based on estimated future undiscounted cash flows. The Company recorded asset write-offs on molds and equipment which were determined to have no future use of approximately $\$ 5.9$ million, $\$ 2.0$ million, and $\$ 0.4 \mathrm{million}$ for 2000,1999 and 1998 , respectively. All impairment losses are included in the Company's cost of sales.

Earnings (Loss) per Share (EPS) Basic EPS is computed by dividing net income (loss) applicable to nonredeemable common stock by the weighted average number of shares of nonredeemable common stock outstanding during each period. Since basic EPS for 1999 represents a loss per share of common stock, the effect of including the incremental shares of common stock from assumed exercise of options and from assumed reclassification of redeemable common stock in EPS computation is anti-dilutive, and, accordingly, basic and diluted EPS are the same.

Accounting Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States 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 date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Stock-based Compensation The Company accounts for stock-based compensation under Accounting Principles Board (APB) Opinion No. 25, Accounting for Stock Issued to Employees. APB No. 25 requires compensation cost to be recorded on the date of the grant only if the current market price of the underlying stock exceeds the exercise price. The Company has adopted the disclosure-only provisions of SFAS No. 123, Accounting for Stock-based Compensation.

Comprehensive Income Comprehensive income represents the change in shareholders' equity resulting from other than shareholder investments and distributions. The Company's foreign currency translation adjustments and unrealized gains and losses on marketable securities are included in accumulated comprehensive income (loss). The effect of deferred taxes on other comprehensive income is not material.

Recent Accounting Pronouncements SFAS No. 133, Accounting for Derivative
Instruments and Hedging Activities, which, as amended, becomes effective for the Company in the first quarter of fiscal 2001. The pronouncement requires companies to record derivatives on the balance sheet as assets or liabilities, measured at fair value. Gains or losses resulting from changes in the value of those derivatives would be accounted for depending on the use of derivatives and whether it qualifies for hedge accounting. The effect of adopting the SFAS No. 133 is not material to the Company's financial position or results of operations.
(2) ACQUISITIONS

In October 1999, the Company acquired the assets of a polymer machining business located in Upland, California for $\$ 2.7$ million. The acquisition has been accounted for under the purchase method of accounting. The excess of the
purchase price over the net assets acquired was $\$ 1.1$ million and was allocated to goodwill. Results of operations are included in the consolidated financial statements subsequent to October 1999.

In April 1998, the Company acquired all the common stock of Hanbal Korea, a Korean corporation, for a nominal amount. Subsequent to the acquisition, the Company contributed additional capital of $\$ 2.3$ million. The acquisition has been accounted for under the purchase method of accounting. The excess of the purchase price over the net book value of the common stock acquired was $\$ 0.8$ million and was allocated to goodwill. Results of operations are included in the consolidated financial statements subsequent to April 1998.

In January 1998, the Company acquired an additional interest in Nippon
Fluoroware K.K. (NFKK) for $\$ 0.9$ million. In October 1999, NFKK agreed to issue equity of $\$ 2.2$ million and debt of $\$ 2.2$ million in exchange for property and equipment. As a result, The Company's ownership percentage in NFKK decreased to $51 \%$ and resulted in a charge to retained earnings of $\$ 0.7$ million.
(3) INVENTORIES

Inventories consist of the following (in thousands):


If the FIFO cost method had been used by the company, inventories would have been $\$ 0.7$ million and $\$ 4.9$ million higher at August 26, 2000 and August 28, 1999, respectively.

During fiscal 1999 and 1998, inventory quantities were reduced, which resulted in a liquidation of LIFO inventory layers carried at lower costs than those prevailing in prior years. The effect of this liquidation was to increase income before income taxes in 1999 and 1998 by approximately $\$ 1.6$ million and $\$ 1.0$ million, respectively.

## (4) PROPERTY, PLANT AND EQUIPMENT

Property, plant, and equipment consists of the following (in thousands):

|  | 2000 | 1999 | Estimated Useful Lives |
| :---: | :---: | :---: | :---: |
| Land. | \$10,481 | \$ 7,307 |  |
| Buildings and improvements | 55,080 | 55,349 | 5-35 |
| Manufacturing equipment | 79,413 | 77,625 | 5-10 |
| Molds.. | 64,951 | 68,352 | 3-5 |
| Office furniture and equipment | 38,399 | 34,291 | 3-8 |
|  | 248,324 | 242,924 |  |
| Less accumulated depreciation. | 140,591 | 125,300 |  |
|  | \$107,733 | \$117,624 |  |

Depreciation expense was $\$ 25.3$ million, $\$ 27.8$ million and $\$ 25.6$ million in 2000 , 1999 and 1998, respectively.

## (5) INVESTMENT IN AFFILIATES

The Company's investment in Metron, a worldwide provider of semiconductor equipment and materials support, is accounted for using the equity method. and has at August 26, 2000. At August 26, 2000, the Company owned approximately 2.7 million shares of Metron with a carrying value of $\$ 14.5$ million and a market value of $\$ 33.1$ million. Sales to Metron were $\$ 81.9$ million, $\$ 31.8$ million and $\$ 34.6$ million in 2000 , 1999 and 1998, respectively. Trade accounts receivable relating to these sales as of August 26, 2000 and August 28, 1999 were $\$ 20.3$ million and $\$ 8.1$ million, respectively.

In November 1999, the Company sold 612,000 shares of its investment in Metron as part of an initial public offering, receiving proceeds of $\$ 7.4$ million, while recognizing a gain of $\$ 5.5$ million. The Company's ownership percentage decreased to $20.3 \%$ as a result of the public offering and subsequent share issuances for exercised stock options by Metron. The value of the Company's investment increased as a result of the initial public offering and was reflected as an increase to retained earnings of $\$ 5.0$ million.

In 1999, our ownership percentage in Metron was reduced from $37.5 \%$ to $32.8 \%$ due to the dilution of ownership resulting from an acquisition by Metron. The Company recorded this $\$ 0.6$ million reduction in its investment through retained earnings.

A summary of assets, liabilities, and results of operations for Metron is as follows (in thousands):

(6) ACCRUED LIABILITIES

Accrued liabilities consist of the following (in thousands):

(7) LONG-TERM DEBT

Long-term debt consists of the following (in thousands):

Unsecured senior notes payable in various semiannual principal installments, including semiannual interest installments at 7.42\% through February $2011 . \ldots \ldots \ldots . .$. Stock redemption notes payable in various installments along with monthly interest of $6 \%$, 8\%, and 9\% through December 2010............................................................................. $\$ 4,802$ 8,490 Unsecured senior notes payable in various quarterly principal installments, including monthly interest installments at 9.46\% through February 2005........................................
Mortgage loans payable in monthly installments of $\$ 55$ including principal and interest at $8.75 \%$ and $9.95 \%$ through July 2000 and July 2008; secured by land and buildings.
Commercial loans payable on a monthly basis in principal installments of $\$ 58$, with interest ranging from $2.125 \%$ to $3.15 \%$ and various maturities through


Commercial loan payable on a semiannual basis in principal installments of $\$ 213$ and interest ranging from 4.9\% to $6 \%$ and various maturities through December 2007................. 2,522 3,416 Industrial Revenue Bonds payable on a semiannual basis with principal installments of $\$ 50$ through October 2012, and variable interest ranging from 3.45\% to 5.85\%. Note payable to Marubeni Corporation, interest at $9.07 \%$, due monthly; balloon payment of $\$ 3,913$ due March 2002; secured by building..




Annual maturities of long-term debt as of August 26, 2000, are as follows (in thousands):


During fiscal 2000, the Company signed new debt agreements which replaced the unsecured senior notes payable and the unsecured reducing revolving commitments. These new agreements contain substantially identical terms as the former agreements. The new agreements require the Company to maintain certain quarterly financial covenants beginning with the quarter ended February 28, 2000.

During the fourth quarter, the Company retired $\$ 42$ million of long-term and capital lease obligations, utilizing a portion of the proceeds raised in the Company's initial public offering. In connection therewith, prepayment costs of $\$ 1.8$ million ( $\$ 1.1$ million after taxes) were incurred by the Company. This amount is reported in the Consolidated Statements of Operations as "Extraordinary loss on extinguishment of debt, net of taxes".
(8) SHORT-TERM BANK BORROWINGS

The Company has a revolving commitment with three commercial banks for aggregate borrowings of $\$ 30$ million with interest at the LIBOR rate (5.4\% at August 26, 2000), plus $2.0 \%$, or at prime ( $8.25 \%$ at August 26, 2000). During 2000 interest ranged between $7.75 \%$ and $8.5 \%$. There was no balance outstanding under this commitment at either August 26, 2000 or August 28, 1999.

The Company has entered into line of credit agreements with six international commercial banks, which provide for aggregate borrowings of 4 million Deutsche marks, 5 million Malaysia ringgits and 900 million yen for its foreign subsidiaries, which is equivalent to $\$ 11.9$ million as of August $26,2000$. Interest rates for these facilities are based on a factor of the banks' reference rates and ranged from $1.625 \%$ to $5.7 \%$ during 2000. Borrowings outstanding under these line of credit agreements at August 26, 2000 and August 28, 1999, were $\$ 8.3$ million and $\$ 8.4$ million, respectively.

## (9) LEASE COMMITMENTS

At August 26, 2000, the Company was obligated under noncancellable operating lease agreements for certain equipment and buildings. Future minimum lease payments for noncancellable operating leases with initial or remaining terms in excess of one year are as follows (in thousands):

| 2001. | \$4,393 |
| :---: | :---: |
| 2002. | 2,974 |
| 2003. | 2,086 |
| 2004 | 1,776 |
| 2005. | 1,217 |
| Thereafter | 3,261 |
| Total minimum lease payments | 15,707 |
| Less minimum sublease rentals. | 2,837 |
|  | \$12,870 |

Total rental expense for all equipment and building operating leases was $\$ 4.9$ million, $\$ 6.1$ million and $\$ 4.3$ million in 2000,1999 and 1998, respectively. See note 19 for related party leases included above.

Interest expense, net consists of the following (in thousands):

(11) OTHER INCOME, NET

Other income, net consists the following (in thousands):

|  | 2000 | 1999 |  | 1998 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gain (loss) on sale of property and equipment. | \$ (803) | \$ | (543) |  | 1,225 |
| Gain (loss) on sale of investment in affiliate | 5,468 |  | - |  | -- |
| Gain (loss) on foreign currency translation. | 438 |  | 1,121 |  | (904) |
| Other, net. | (158) |  | 1,272 |  | (48) |
|  | \$ 4,945 | \$ | 1,850 | \$ | 273 |

## (12) INCOME TAXES

Income before income taxes was derived from the following sources (in thousands):

|  | 2000 | 1999 | 1998 |
| :---: | :---: | :---: | :---: |
| Domestic | \$65,702 | \$ 7,592 | \$16,634 |
| Foreign. | 13,192 | 3,705 | 1,279 |
|  | \$78,894 | \$11,297 | \$17,913 |

Income tax expense (benefit) is summarized as follows (in thousands):


The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities at August 26, 2000 and August 28, 1999 are as follows (in thousands):


In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. Based upon the level of historical taxable income and projections for future taxable income over the periods during which deferred tax assets are deductible, the Company believes it is more likely than not that the benefit of these deductible differences will be realized.

Income tax expense differs from the expected amounts based upon the statutory federal tax rates as follows:


## (13) SHAREHOLDERS' EQUITY

Initial Public Offering In July 2000, the Company completed an initial public offering of $9,890,000$ shares of common stock at an offering price of $\$ 11.00$ per share. The Company received proceeds of $\$ 99.0$ million after deducting $\$ 7.3$ million and $\$ 2.5$ million for underwriting and issuance costs, respectively. Net proceeds were to be used for the retirement of debt, working capital and other general corporate purposes.

Stock Split In March, 2000, the Company effected a two-for-one stock split of the Company's common stock to be effective prior to the Company's initial public offering. All share and per share amounts have been restated to give effect to the stock split. In connection with the stock split, the Company's board of directors also approved an increase in the Company's number of authorized common shares from $100,000,000$ shares to $200,000,000$ shares.

Employee Stock Ownership Plan and Trust Entegris maintains an Employee Stock Ownership Plan and Trust (ESOT). In August 1985 and August 1989, the ESOT purchased $27,790,156$ shares of common stock of the Company from a shareholder. The ESOT borrowed funds, guaranteed by the Company, for $\$ 3.6$ million and obtained additional contributions to fund this purchase in October 1985. In August 1989, the ESOT borrowed additional funds of $\$ 1.2$ million guaranteed by the Company, to purchase an additional $4,631,692$ shares of common stock from a stockholder.

Employer contributions to the ESOT are determined from time to time by the board of directors at its discretion, and are made without regard to the profits of the Company. Contributions shall not exceed the amount allowable by the Internal Revenue Code. No contributions were made to the ESOT for 2000 , 1999 or 1998. Employer contributions are allocated to separate accounts maintained for each participant in the proportion that the total qualified compensation of each participant bears to the total qualified compensation for all participants. Each participant's account is adjusted, at least annually, to reflect investment gains or losses.

ESOT shares totaled $17,910,514$ and $23,252,398$ as of August 26, 2000 and August 28, 1999, respectively. Prior to the company's initial public offering completed in July 2000, the ESOT plan contained a put option, whereby the Company agreed to purchase the vested shares distributed to terminated participants or their estates, at the appraised value of the shares as of the second August 31 following termination, or after the first August 31 upon death, disability, or attainment of age 65. The fair value of shares was estimated by an independent appraiser to be $\$ 6.25$ and $\$ 2.01$ as of August 28, 1999 and August 29, 1998, respectively. As a result of this redemption feature, these shares were classified separately from shareholders' equity. Pursuant to the terms of the ESOT plan, upon the consummation of an initial public offering these shares would no longer be redeemable and, accordingly, were reclassified into shareholders' equity in the fourth quarter of fiscal 2000.

On August 20, 1998, the board of directors approved a change to the distribution procedures, whereby a corporate bylaw restriction was eliminated. The impact of this restriction elimination allowed participants (beneficiaries and alternate payees) to receive their distribution in Company stock. This change was effective for distributions based on the August 29, 1998 valuation. Subsequent to the Company's initial public offering, all distributions will be in the form of Company stock.

Stock Option Plans In August 1999, Entegris, Inc. established the Entegris, Inc. 1999 Long-Term Incentive and Stock Option Plan (the 1999 Plan) and the Entegris, Inc. Outside Directors' Stock Option Plan (the Directors' Plan). The 1999 Plan and the Directors' Plan (the Plans) replaced similar plans in effect prior to the business combination described in Note 1. The maximum aggregate number of shares that may be granted under the plans is $9,000,000$ and $1,000,000$,
respectively. The Plans state that the exercise price for these shares shall not be less than $100 \%$ of the fair market value of the common stock on the date of grant of such option.

On February 12, 1998, 10-year stock options were granted at a price equal to the most recent fair market appraised value. Some of the options became immediately exercisable while others are exercisable on a cumulative basis at a rate of 25\% per year.

Under the Directors' Plan, each outside director shall automatically be granted an option to purchase 15,000 shares upon the date the individual becomes a director. Annually, each outside director will automatically be given an option to purchase 6,000 shares. Options will be exercisable six months subsequent to the date of grant. The term of the option shall be ten years. The Plan states that the exercise price for these shares shall not be less than $100 \%$ of the fair market value of the common stock on the date of grant of such option.

Option activity for the 1999 Plan and the Directors' Plan is summarized as follows (shares in thousands):

|  | Number of shares | Option price | Number of shares | Option price | Number of shares | Option price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Options outstanding, beginning |  |  |  |  |  |  |
| of year. | 5,899 | \$2.72 | 6,010 | \$2.72 | 1,810 | \$1.43 |
| Granted. | 1,772 | 7.27 | -- | -- | 4,610 | 3.15 |
| Exercised. | (106) | 2.51 | -- | -- | -- | -- |
| Canceled. | (258) | 4.21 | (111) | 2.57 | (410) | 2.01 |
| Options outstanding, end of year. | 7,307 | \$3.78 | 5,899 | \$2.72 | 6,010 | \$2. 72 |
| Options exercisable, end of year. | 4,618 | \$2.70 | 3,855 | \$2. 54 | 2,769 | \$2.45 |
| Options available for grant, end of year | $2,587$ |  | 4,101 |  | 3,990 |  |

Options outstanding for the 1999 Plan and the Directors' Plan at August 26, 2000 is summarized as follows (shares in thousands):


The Company determined pro forma compensation expense under the provisions of SFAS No. 123 using the Black-Scholes pricing model and the following assumptions:


Had compensation cost for option grants been determined consistent with SFAS No. 123, the Company's net income (loss), on a pro forma basis, would have been as follows (in thousands, except per share data):

|  | 2000 | 1999 | 1998 |
| :---: | :---: | :---: | :---: |
| Net income, as reported. | \$50,575 | \$5,729 | \$13,083 |
| Pro forma net income | 48,347 | 4,603 | 10,018 |
| Basic net earnings (loss) per share, as reported | 0.05 | (2.53) | 1.10 |
| Pro forma basic net earnings (loss) per share | (0.01) | (2.56) | 1.01 |
| Diluted net earnings (loss) per share, as reporte | 0.04 | (2.53) | 0.21 |
| Pro forma diluted net earnings (loss) per share | (0.01) | (2.56) | 0.16 |

The weighted average fair value of options granted during 2000 and 1998 with exercise prices equal to the market price at the date of grant was $\$ 6.95$ and $\$ 1.33$ per share, respectively. In 2000 , options for 200,000 common shares were granted with an exercise price of $\$ 6.25$ per share. The Company will record compensation expense of $\$ 0.6$ million for these grants based on the difference between the exercise price and the fair value on the date of grant of the common stock over the four-year vesting term of the options. No options were granted in 1999.

Employee Stock Purchase Plan In March 2000, the Company's board of directors adopted, and our shareholders approved in May 2000, the Entegris, Inc. Employee Stock Purchase Plan (ESPP Plan). A total of $4,000,000$ common shares were reserved for issuance under the ESPP Plan. The ESPP Plan allows employees to elect, at six-month intervals, to contribute up to $10 \%$ of their compensation, subject to certain limitations, to purchase shares of common stock at the lower of $85 \%$ of the fair market value on the first day or last day of each six-month period. At August 26,2000 , no shares had yet been issued under the ESPP Plan.

## (14) PENSION AND 401(k) SAVINGS PLAN

Entegris, Inc. has a defined contribution pension plan covering eligible employees. Contributions under this plan are determined by a formula set forth in the plan agreement. Total pension costs for 2000 , 1999 and 1998 related to this plan were $\$ 1.6$ million, $\$ 2.0$ million and $\$ 1.7$ million, respectively.

The Company maintains $401(k)$ employee savings plans (the Plans) that qualify as deferred salary arrangements under Section $401(k)$ of the Internal Revenue Code. Under the Plans, eligible employees may defer a portion of their pretax wages, up to the Internal Revenue Service annual contribution limit. Effective January 1, 2000, the Company matches $100 \%$ of employees' contributions on the first $3 \%$ of eligible wages and 50\% of employees' contributions on the next $2 \%$ of eligible wages, or a maximum match of $4 \%$ of the employee's eligible wages. The board of directors may, at its discretion, declare a profit sharing contribution in addition to the matching contribution, but all contributions are limited to the maximum amount deductible for federal income tax purposes. The employer profit sharing and matching contribution expense under the Plans was $\$ 2.4$ million, $\$ 1.8$ million and $\$ 1.6$ million in 2000,1999 and 1998 , respectively.

## (15) EARNINGS (LOSS) PER SHARE

Basic earnings (loss) per share is based upon the weighted average common shares outstanding during each year. Diluted earnings (loss) per share is based upon the weighted average common shares outstanding and dilutive common stock equivalent shares outstanding during each year. The following table presents a reconciliation of the numerators and denominators used in the computation of basic and diluted earnings (loss) per share (in thousands):


The Company operates in one segment as it designs, develops, manufactures, markets and sells material management and handling products predominantly within the semiconductor industry. All products are sold on a worldwide basis.

The following table summarizes total net sales, based upon the country from which sales were made, and long-lived assets attributed to significant countries for 2000, 1999 and 1998, respectively (in thousands):


Export sales, principally from the United States, amounted to \$79.1 million, $\$ 50.3$ million and $\$ 70.7$ million in 2000,1999 and 1998, respectively. In 2000, 1999 and 1998, no single customer accounted for $10 \%$ or more of net sales.
(17) SUPPLMENTARY CASH FLOW INFORMATION

Schedule of interest and income taxes paid (in thousands):


## (18) FAIR VALUE OF FINANCIAL INSTRUMENTS

The carrying amount of cash equivalents and short-term debt approximates fair value due to the short maturity of those instruments.

The fair value of long-term debt was estimated using discounted cash flows based on market interest rates for similar instruments approximated its carrying value of $\$ 12.7$ million at August 26, 2000.

## (19) RELATED-PARTY TRANSACTIONS

Leases The Company leases office space and production facilities under operating leases from a major shareholder's trust or from entities related to this shareholder. These leases, which expire through the year 2004, may be adjusted periodically based on a percentage of the increase in the consumer price index. The Company is required to pay for all real estate taxes, utilities and other operating expenses. Rent expense relating to these agreements totaled $\$ 1.1$ million, $\$ 1.2$ million and $\$ 0.9$ million for 2000, 1999 and 1998, respectively. In March 2000, the Company entered
into an agreement to purchase certain real estate and personal property, which the Company previously leased from the related party. The purchase price of the property, which was purchased on May 1, 2000, was $\$ 2.5$ million.

Service Agreement The Company allocated rental payments to Emplast, a previously owned company, totaling $\$ 0.6$ million, $\$ 0.3$ million and $\$ 0.4$ million in 2000 ,
1999 and 1998, respectively. As of August 26, 2000 and August 28, 1999, Emplast owed the Company $\$ 0.4$ million and $\$ 0.8$ million and respectively, which are included in other current assets in the accompanying consolidated balance sheets.

Notes Receivable At August 26, 2000, the Company has a $\$ 0.8$ million note receivable from a major stockholder trust which bears interest at $8.0 \%$ per year.

Debt Guarantees The Company guarantees a loan of a former officer and a major shareholder related to the Company's leased facility in Castle Rock, Colorado. This guarantee totaled $\$ 1.5$ million and $\$ 1.6$ million and at August 26, 2000 and August 28, 1999, respectively.

Sales to Minority Shareholder The Company sells products to Marubeni under normal business terms. Sales to Marubeni were $\$ 16.2$ million, $\$ 12.0$ million and $\$ 18.0$ million in 2000, 1999 and 1998, respectively. At August 26, 2000 and August 28, 1999, the Company had a receivable from Marubeni totaling \$2.5 million and $\$ 1.9$ million, respectively, due under normal trade terms. In addition, in February 1997, Marubeni was granted an option to buy 214,942 shares of the Company's common stock with an exercise price of $\$ 5.19$ per share. The grant was immediately vested and is exercisable for ten years.
(20) QUARTERLY INFORMATION-UNAUDITED (in thousands, except per share data)

Quarter

|  | First | Second | Third | Fourth | Year |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal 1999 |  |  |  |  |  |
| Net sales | \$51,466 | \$60,124 | \$60,585 | \$69,777 | \$241,952 |
| Gross profit | 17,091 | 22,473 | 24,737 | 27,549 | 91,850 |
| Net income (loss) | $(1,650)$ | 1,750 | 2,433 | 3,197 | 5,729 |
| Basic earnings (loss) per share | (0.72) | (0.62) | (0.61) | (0.59) | (2.53) |
| Diluted earnings (loss) per share | (0.72) | (0.62) | (0.61) | (0.59) | (2.53) |



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

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT
The information required by this item, which is included in the Proxy Statement, is incorporated by reference.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item, which is included in the Proxy Statement, is incorporated by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT
The information required by this item, which is included in the Proxy Statement, is incorporated by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS
The information required by this item, which is included in the Proxy Statement, is incorporated by reference.

PART IV

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

1. Financial Statements

The Financial Statements required by this item, with the report of independent auditors, are submitted in a separate section on pages 26 to 43 of this report.
2. Financial Statement Schedules

The financial statement schedule "Schedule II--Valuation and Qualifying Accounts" is filed as part of this Report and should be read in conjunction with the consolidated financial statements.

All other schedules for which provisions are made in the applicable accounting regulation of the Securities and Exchange Commission have been omitted because the information required to be set forth therein is not applicable or is shown in the Financial Statements or notes thereto.
3. Exhibits

The following exhibits are filed herewith or incorporated by reference:

Exhibit
Number
3.1 (i)
3.2
3.3 (i)
4.1 (i)
10.1 (i)
10.2 (i)
10.3 (i)
10.4(i)
10.5 (i)
10.6(i)
10.7 (i)
10.8(i)
10.9 (i)
10.10 (i)
10.11 (i)
10.12 (i)
10.13 (i)
10.14 (i)
10.15 (i)
10.16 (i)
10.17 (i)
10.18 (i)
10.20 (i)
10.21 (i) +

Description of Document
Articles of Incorporation of Entegris, Inc.

Amended and Restated Bylaws of Entegris, Inc.
Audit Committee Charter of Entegris, Inc.
Specimen of Common Stock Certificate

Entegris, Inc. 1999 Long-Term Incentive and Stock Option Plan
Entegris, Inc. Outside Directors' Option Plan
Entegris, Inc. 2000 Employee Stock Purchase Plan

Entegris, Inc. Employee Stock Ownership Plan
Entegris, Inc. Pension Plan

Entegris, Inc. $401(k)$ Savings and Profit Sharing Plan
Employment Agreement between Delmer Jensen and Empak, Inc., dated as of January 1, 1999

Lease Agreement between Empak, Inc. and Fleninge Partnership, dated June 15, 1993

Lease Agreement between Empak, Inc. and Wayne C. Bongard, dated September 22, 1998

Amended and Restated Sublease Agreement between Empak, Inc. and Emplast, Inc., dated April 28, 1997

Real Estate Purchase and Sale Agreement between Fleninge Partnership and Entegris, Inc., dated March 15, 2000

Promissory Note between Wayne C. Bongard estate and Empak, Inc., dated April 15, 1999

Promissory Note between Fluoroware, Inc. and Dan Quernemoen, dated January 5, 1996

Guaranty between Empak, Inc. and First Bank National Association, dated March 1, 1994

Consolidation Agreement by and among Entegris, Inc., Fluoroware, Inc. and Empak, Inc., dated June 1, 1999

Distribution Agreement between Fluoroware, Inc. and Metron Semiconductors Europa B.V., dated July6, 1995, as amended by Entegris, Inc., ISS Amendements to Metron/Fluoroware Distribution Contract, between Entegris, Inc. Integrated Shipping Systems and Metron Technology, Inc., dated October 22, 1999

Metron Semiconductors Europa B.V. Investor Rights Agreement dated July 6, 1995
U.S. Stocking Distributor Five-Year Agreement as of September 1, 1997 between Fluoroware, Inc. and Kyser Company

STAT-PRO(R) 3000 and STAT-PRO(R) 3000E Purchase and Supply Agreement between Fluoroware, Inc. and Miller Waste Mills, d/b/a RTP Company, dated April 6, 1998

Amended and Restated Distributorship Agreement by and among Entegris, Inc., Empak, Inc., Marubeni America Corporation and Marubeni Corporation, dated as of December 1, 1999

PFA Purchase and Supply Agreement by and between E.I. Du Pont De Nemours and Company and Fluoroware, Inc., dated January 7, 1999, which was made effective retroactively to November 1, 1998, and supplemented by the Assignment and Limited Amendment by and between the same parties and Entegris, Inc., dated as of September 24, 1999
(i) Incorporated by reference from the Company's Registration Statement on Form S-1 (No. 333-33668), filed with the Commission on July 10, 2000, as amended through the date hereof.
$+\quad$ Confidential information has been omitted from these exhibits and filed separately with the SEC accompanied by a confidential treatment request pursuant to Rule 406 under the Securities Act of 1933, as amended.

Pursuant to Item $601(\mathrm{~b})(4)(i i i)$ of Regulation $S-K$, copies of instruments defining the rights of holders of certain long-term debt of Entegris are not filed, and in lieu thereof, Entegris agrees to furnish copies thereof to the SEC upon request.
(b) Reports on Form 8-K No Reports on Form $8-K$ were filed during the quarter ended August 26, 2000.
(c) See Exhibits listed under Item $14(\mathrm{a})(3)$.
(d) Not applicable. See Item 14 (a) (2).

Pursuant to the requirements of Section 13 or $15(\mathrm{~d})$ of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Chaska, State of Minnesota, on November 22, 2000.

/s/ Stan Geyer<br>Stan Geyer<br>Chief Executive Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below each severally constitutes and appoints each of Stan Geyer and James E. Dauwalter, in any and all capacities, to sign any and all amendments to this Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that the said attorney-in-fact, or their substitutes, may lawfully do, or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities stated and on the dates indicated.

| Signatures | Title |
| :---: | :---: |
| /s/ Daniel R. Quernomoen | Chairman of the Board of Directors |
| Daniel R. Quernomoen |  |
| /s/ James A. Bernards | Director |
| James A. Bernards |  |
| /s/ Robert J. Boehlke | Director |
| Robert J. Boehlke |  |
| /s/ Mark A. Bongard | Director |
| Mark A. Bongard |  |
| /s/ James E. Dauwalter | Director |
| James E. Dauwalter |  |
| /s/ Stan Geyer | Chief Executive Officer and Director |
| Stan Geyer |  |
| /s/ Delmer M. Jensen | Director |
| Delmer M. Jensen |  |
| /s/ Gary F. Klingl | Director |
| Gary F. Klingl |  |
| /s/ Roger D. McDaniel | Director |
| Roger D. McDaniel |  |
| /s/ John D. Villas | Executive Vice President and Chief |
| John D. Villas | Financial Officer (Chief Financial \& Accounting Officer) |

Date

November 22, 2000

November 22, 2000

November 22, 2000

November 22, 2000

November 22, 2000

November 22, 2000

November 22, 2000

November 22, 2000

November 22, 2000

November 22, 2000

The Board of Directors
Entegris, Inc.:
Under date of October 10, 2000, we reported on the consolidated balance sheets of Entegris, Inc. and subsidiaries as of August 26, 2000 and August 28, 1999 and the related consolidated statements of operations, shareholders' equity (deficit) and cash flows for each of the years in the three-year period ended August 26, 2000, as contained in the 2000 Annual Report to Shareholders. These consolidated financial statements and our report thereon are included in the annual report on Form $10-\mathrm{K}$ for the fiscal year ended August 26, 2000. In connection with our audits of the aforementioned consolidated financial statements, we have also audited the related financial statement Schedule II Valuation and Qualifying Accounts. This financial statement schedule is the responsibility of the Company's management. Our responsibility is to express an opinion on this financial statement schedule based on our audits.

In our opinion, based our audits and the report of the other auditors, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein

## KPMG LLP

Minneapolis, Minnesota October 10, 2000


Deducted from asset accounts:
Year ended August 28, 1999:
Allowance for doubtful
receivables............
$\$ 1,322$
$=====$
$\$ 2,512$
213
$=====$
2,701
$=====$

330
\$1,205
Inventory reserves......
2,701
2,043
\$3, 170

Deducted from asset accounts:
Year ended August 26, 2000:
Allowance for doubtful
receivables............

Inventory reserves .....


174
\$2,524

| $\$ 1,205$ | 1,493 | 174 | $\$ 2,524$ |
| :--- | :--- | ---: | :--- |
| $======$ | $=====$ | $===$ | $=====$ |
| $\$ 3,170$ | 3,073 | 2,060 | $\$ 4,183$ |
| $======$ | $====$ | $===$ | $=====$ |

## AMENDED AND RESTATED BYLAWS

OF
ENTEGRIS, INC.

## ARTICLE 1

Offices
1.1 Principal Executive Office. Unless otherwise designated by the Board of Directors of the corporation, the principal executive office of the corporation shall be the registered office of the corporation as set forth in the Articles of Incorporation or in the most recent amendment of the Articles of Incorporation or statement of the Board of Directors filed with the Secretary of State of Minnesota changing the registered office in the manner prescribed by law.
1.2 Other Offices. The corporation may have such other offices, within or without the State of Minnesota, as the Board of Directors shall, from time to time, determine.

ARTICLE 2
Meetings of Shareholders
2.1 Time and Place of Meetings. All meetings of the shareholders of this corporation shall be held on the date and at the time and place (within or without the State of Minnesota) designated by the Board of Directors in the notices of meeting. Any regular or special meeting of the shareholders of the corporation called by or held pursuant to a written demand of shareholders shall be held in the county where the principal executive office of the corporation is located.
2.2 Regular Meetings. Regular meetings of the shareholders of this corporation may be held at the discretion of the Board of Directors on an annual or less frequent periodic basis on such dates and at such times and places as may be designated by the Board of Directors in the notices of meeting. At regular meetings the shareholders shall elect a Board of Directors and transact such other business as may be appropriate for action by shareholders. If a regular meeting of shareholders has not been held for a period of fifteen (15) months, one or more shareholders holding not less than three percent (3\%) of the voting power of all shares of the corporation entitled to vote may call a regular meeting of shareholders by delivering to the chief executive officer or chief financial officer a written demand for a regular meeting. Within thirty (30) days after the receipt of such a written demand by the chief executive officer or chief financial officer, the Board of Directors shall cause a regular meeting of shareholders to be called and held on notice no later than ninety (90) days after the receipt of such written demand, all at the expense of the corporation.
2.3 Special Meetings. Special meetings of the shareholders, for any purpose or purposes appropriate for action by shareholders, may be called by the chief executive officer, the chief financial officer, or by the Board of Directors or any two or more members thereof. Such meeting shall be held on such date and at such time and place as shall be fixed by the person or persons calling the meeting and designated in the notice of meeting. A special meeting may also be called by one or more shareholders holding ten percent (10\%) or more of the voting power of all shares of the corporation entitled to vote, except that a special meeting for the purpose of considering any
action to directly or indirectly facilitate or effect a business combination, including any action to change or otherwise affect the composition of the Board of Directors for that purpose, must be called by shareholders holding twenty-five percent (25\%) or more of the voting power of all shares entitled to vote. The shareholders calling such meetings shall deliver to the chief executive officer or chief financial officer a written demand for a special meeting, which demand shall contain the purposes of the meeting. Within thirty (30) days after the receipt of such a written demand for a special meeting of shareholders by the chief executive officer or chief financial officer, the Board of Directors shall cause a special meeting of shareholders to be called and held on notice no later than ninety (90) days after the receipt of such written demand, all at the expense of the corporation. Business transacted at any special meeting of shareholders shall be limited to the purpose or purposes stated in the notice of meeting. Any business transacted at any special meeting of shareholders that is not included among the stated purposes of such meeting shall be voidable by or on behalf of the corporation unless all of the shareholders have waived notice of the meeting.
2.4 Notice of Meetings. Except where a meeting of shareholders is an adjourned meeting and the date, time, and place of such meeting were announced at the time of adjournment, notice of all meetings of shareholders stating the date, time, and place thereof, and any other information required by law or desired by the Board of Directors or by such other person or persons calling the meeting, and in the case of special meetings, the purpose thereof, shall be given to each shareholder of record entitled to vote at such meeting not less than three (3) nor more than sixty (60) days prior to the date of such meeting. If a plan of merger or exchange or the sale or other disposition of all or substantially all of the assets of the corporation is to be considered at a meeting of shareholders, notice of such meeting shall be given to every shareholder, whether or not entitled to vote. The notice of meeting at which there is to be considered a proposal to adopt a plan of merger or exchange or the sale or other disposition of all or substantially all of the assets of the corporation shall be given not less than fourteen (14) days prior to the date of such meeting, shall state the purpose of such meeting, and, where a plan of merger or exchange is to be considered, shall include a copy or a short description of the plan. Notices of meeting shall be given to each shareholder entitled thereto by oral communication, by mailing a copy thereof to such shareholder at an address designated by such shareholder or to the last known address of such shareholder, by handing a copy thereof to such shareholder, or by any other delivery that conforms to law. Notice by mail shall be deemed given when deposited in the United States mail with sufficient postage affixed. Notice shall be deemed received when it is given.
2.5 Waiver of Notice. Any shareholder may waive notice of any meeting of shareholders. Waiver of notice shall be effective whether given before, at, or after the meeting and whether given orally, in writing, or by attendance. Attendance by a shareholder at a meeting is a waiver of notice of that meeting, except where the shareholder objects at the beginning of the meeting to the transaction of business because the meeting is not lawfully called or convened and does not participate thereafter in the meeting, or objects before a vote on an item of business because the item may not lawfully be considered at that meeting and does not participate in the consideration of that item at the meeting.
2. 6 Record Date. The Board of Directors may fix a time, not exceeding sixty (60) days preceding the date of any meeting of shareholders, as a record date for the determination of the
shareholders entitled to notice of and to vote at such meeting, notwithstanding any transfer of shares on the books of the corporation after any record date so fixed.
2.7 Quorum. The holders of a majority of the voting power of all shares of the corporation entitled to vote at a meeting shall constitute a quorum at a meeting of shareholders for the purpose of taking any action other than adjourning such meeting. If a quorum is present when a duly called or held meeting is convened, the shareholders present may continue to transact business until adjournment, even though the withdrawal of a number of shareholders originally represented leaves less than the number otherwise required for a quorum.
2.8 Voting and Proxies. At each meeting of the shareholders, every shareholder having the right to vote shall be entitled to vote either in person or by proxy. Each shareholder shall have one vote for each share held by such shareholder, except as may be otherwise provided in the Articles of Incorporation or the terms of the share or as may be required to provide for cumulative voting (if not denied by the Articles of Incorporation). No appointment of a proxy, however, shall be valid for any purposes more than eleven (11) months after the date of its execution, unless a longer period is expressly provided in the appointment. Every appointment of a proxy shall be in writing, and shall be filed with the secretary of the corporation before or at the meeting at which the appointment is to be effective. An appointment of a proxy for shares held jointly by two or more shareholders shall be valid if signed by any one of them, unless the secretary of the corporation receives from any one of such shareholders written notice either denying the authority of another of such shareholders to appoint a proxy or appointing a different proxy. All questions regarding the qualification of voters, the validity of appointments of proxies, and the acceptance or rejection of votes shall be decided by the presiding officer of the meeting. The shareholders shall take action by the affirmative vote of the holders of a majority of the voting power of the shares present, in person or represented by proxy, and entitled to vote, except where a different vote is required by law, the Articles of Incorporation, or these Bylaws.
2.9 Action Without a Meeting. Any action required or permitted to be taken at a meeting of the shareholders may be taken without a meeting by written action signed by all of the shareholders entitled to vote on such action. Such written action shall be effective when signed by all of the shareholders entitled to vote thereon or at such different effective time as is provided in the written action.

ARTICLE 3
Directors
3.1 General Powers. Except as authorized by the shareholders pursuant to a shareholder control agreement or unanimous action, the business and affairs of the corporation shall be managed by or shall be under the direction of the Board of Directors. The directors may exercise all such powers and do all such things as may be exercised or done by the corporation, subject to the provisions of applicable law, the Articles of Incorporation, and these Bylaws.
3.2 Number, Qualifications and Term of Office. The Board of Directors shall consist of up to nine (9) members. Any change in the number of directors on the Board of Directors (including, without limitation, changes at annual meetings of shareholders) shall be approved by the
affirmative vote of not less than seventy-five percent (75\%) of the votes entitled to be cast by the holders of all then outstanding shares of voting stock, voting together as a single class, unless such change shall have been approved by a majority of the entire Board of Directors. If such change shall not have been so approved, the number of directors shall remain the same. No decrease in the number of directors pursuant to this section shall shorten the term of any incumbent director or effect the removal of any director then in office except upon compliance with the provisions of Section 3.10. The directors shall be divided, with respect to the time for which they severally hold office, into three classes, designated Class I, Class II, and Class III, with the term of office of only one director class to expire at each annual meeting of shareholders. Each class shall consist, as nearly as may be possible, of one-third of the total number of directors constituting the entire Board of Directors. At each annual meeting of shareholders, the number of directors equal to the number of the directors in the class whose term expires at the meeting shall be chosen for a term of three years. Despite the expiration of a director's term, the director shall continue to serve until his or her successor is elected and qualified.
3.3 Meetings. Meetings of the Board of Directors may be held from time to time at any place within or without the State of Minnesota that the Board of Directors may designate. Meetings of the Board of Directors also may be called by the chief executive officer, or by any director, in which case the person or persons calling such meeting may fix the date, time, and place thereof, either within or without the State of Minnesota, and shall cause notice of meeting to be given.
3.4 Notice of Meetings. If a meeting schedule is adopted by the Board, or if the date and time of a Board meeting has been announced at a previous meeting, no notice is required. In all other cases three (3) days' notice of meetings of the Board of Directors, stating the date and time thereof, and any other information required by law or desired by the person or persons calling such meeting, shall be given to each director. If notice of meeting is required, and such notice does not state the place of the meeting, such meeting shall be held at the principal executive office of the corporation. Notice of meetings of the Board of Directors shall be given to directors in the manner provided in these Bylaws for giving notice to shareholders of meetings of shareholders.
3.5 Waiver of Notice. A director may waive notice of a meeting of the Board. A waiver of notice by a director is effective, whether given before, at or after the meeting and whether given in writing, orally or by attendance. The attendance of a director at any meeting shall constitute a waiver of notice of such meeting, unless such director objects at the beginning of the meeting to the transaction of business on the grounds that the meeting is not lawfully called or convened and does not participate thereafter in the meeting.
3.6 Quorum and Voting. A majority of the directors currently holding office is a quorum for the transaction of business at any meeting of the Board of Directors. In the absence of a quorum, a majority of directors present may adjourn the meeting from time to time until a quorum is present. If a quorum is present when a duly called or held meeting is convened, the directors present may continue to transact business until adjournment, even though the withdrawal of a number of directors originally present leaves less than the number otherwise required for a quorum. The Board of Directors shall take action by the affirmative vote of a majority of the directors present at any duly held meeting, except as to any question upon which any different vote is required by law, the Articles of Incorporation, or these Bylaws. A director may give advance written consent or
objection to a proposal to be acted upon at a meeting of the Board of Directors. If the proposal acted on at the meeting is substantially the same or has substantially the same effect as the proposal to which the director has consented or objected, such consent or objection shall be counted as a vote for or against the proposal and shall be recorded in the minutes of the meeting. Such consent or objection shall not be considered in determining the existence of a quorum.
3.7 Meeting by Means of Electronic Communication. Members of the Board of Directors of the corporation, or any committee designated by such Board, may participate in a meeting of such Board or committee by means of conference telephone or similar means of communication by which all persons participating in the meeting can simultaneously hear each other, and participation in a meeting pursuant to this section shall constitute presence in person at such meeting.
3.8 Action in Writing. Any action required or permitted to be taken at a meeting of the Board of Directors or of a lawfully constituted committee thereof may be taken by written action signed by all of the directors then in office or by all of the members of such committee, as the case may be. However, if the action does not require shareholder approval and is permitted by the Articles of Incorporation, such action shall be effective if signed by the number of directors or members of such committee that would be required to take the same action at a meeting at which all directors or committee members were present. If any written action is taken by less than all directors or members, all directors or members shall be notified immediately of its text and effective date. The failure to provide such notice, however, shall not invalidate such written action.
3.9 Vacancies. Vacancies on the Board resulting from the death, resignation or removal of a director shall be filled by the affirmative vote of a majority of the remaining directors, even though less than a quorum. Any newly created directorship resulting from an increase in the authorized number of directors by action of the Board of Directors shall be filled by a majority vote of directors serving at the time of such increase. Any director elected under this Section shall hold office for such term as established by the Board and until a successor is duly elected and qualified, unless a prior vacancy occurs by reason of death, resignation, or removal from office.
3.10 Removal of Directors. Removal of a director from office (including a director named by the Board of Directors to fill a vacancy or newly created directorship), with or without cause, shall require the affirmative vote of not less than seventy-five percent (75\%) of the votes entitled to be cast by the holders of all then outstanding shares of voting stock, voting together as a single class.
3.11 Committees. The Board of Directors, by a resolution approved by the affirmative vote of a majority of the directors then holding office, may establish one or more committees of one or more persons having the authority of the Board of Directors in the management of the business of the corporation to the extent provided in such resolution. Such committees, however, shall at all times be subject to the direction and control of the Board of Directors. Committee members need not be directors and shall be appointed by the affirmative vote of a majority of the directors present. A majority of the members of any committee shall constitute a quorum for the transaction of business at a meeting of any such committee. In other matters of procedure the provisions of these Bylaws shall apply to committees and the members thereof to the same extent they apply to the

Board of Directors and directors, including, without limitation, the provisions with respect to meetings and notice thereof, absent members, written actions, and valid acts. Each committee shall keep regular minutes of its proceedings and report the same to the Board of Directors.

## ARTICLE 4 <br> Officers

4.1 Number. The officers of the corporation shall be appointed by the Board of Directors, and shall include a Chief Executive Officer, Chief Financial Officer and Secretary. The Board may also appoint any other officers it deems necessary for the operation and management of the corporation, each of whom shall have the powers, rights, duties, responsibilities and terms of office determined by the Board from time to time. Any number of offices or functions of those offices may be held or exercised by the same person. Officers must be natural persons, and they may be, but need not be, directors of the corporation.
4.2 Term of Office; Removal; Vacancies. An officer shall hold office until a successor shall have been duly appointed and qualified, or until the officer's prior death, resignation or removal. Any officer or agent elected or appointed by the Board of Directors shall hold office at the pleasure of the Board of Directors and may be removed, with or without cause, at any time by the vote of a majority of the Board of Directors. Any vacancy in an office of the corporation shall be filled by action of the Board of Directors.
4.3 Chief Executive Officer. Unless provided otherwise by a resolution adopted by the Board of Directors, the Chief Executive Officer shall have general active management of the business of the corporation, in the absence of the Chairperson of the Board or if the office of Chairperson of the Board is vacant, shall preside at meetings of the shareholders and Board of Directors, shall see that all orders and resolutions of the Board of Directors are carried into effect, shall sign and deliver in the name of the corporation any deeds, mortgages, bonds, contracts, or other instruments pertaining to the business of the corporation, except in cases in which the authority to sign and deliver is required by law to be exercised by another person or is expressly delegated by the Articles of Incorporation, these Bylaws, or the Board of Directors to some other officer or agent of the corporation, may maintain records of and certify proceedings of the Board of Directors and shareholders, and shall perform such other duties as may from time to time be prescribed by the Board of Directors.
4.4 Chief Financial Officer. Unless provided otherwise by a resolution adopted by the Board of Directors, the Chief Financial Officer shall keep accurate financial records for the corporation, shall deposit all monies, drafts, and checks in the name of and to the credit of the corporation in such banks and depositories as the Board of Directors shall designate from time to time, shall endorse for deposit all notes, checks, and drafts received by the corporation as ordered by the Board of Directors, making proper vouchers therefore, shall disburse corporate funds and issue checks and drafts in the name of the corporation as ordered by the Board of Directors, shall render to the Chief Executive Officer and the Board of Directors, whenever requested, an account of all such officers' transactions as Chief Financial Officer and of the financial condition of the corporation, and shall perform such other duties as may be prescribed by the Board of Directors or the Chief Executive Officer from time to time.
4.5 Secretary. The Secretary shall attend all meetings of the Board of Directors and of the shareholders and shall maintain records of, and whenever necessary, certify all proceedings of the Board of Directors and of the shareholders. The Secretary shall keep the stock transfer register
of the corporation, when so directed by the Board of Directors or other person or persons authorized to call such meetings, shall give or cause to be given notice of meetings of the shareholders and of meetings of the Board of Directors, and shall also perform such other duties and have such other powers as the Chief Executive Officer or the Board of Directors may prescribe from time to time.
4.6 Chairperson of the Board. The Board of Directors may elect a Chairperson of the Board who, if elected, shall preside at all meetings of the shareholders and of the Board of Directors and shall perform such other duties as may be prescribed by the Board of Directors from time to time.
4.7 President. Unless otherwise determined by the Board of Directors, the Chief Executive Officer shall be the President of the corporation. If an officer other than the Chief Executive Officer is designated President, the President shall have such powers and perform such duties as the Board of Directors or the Chief Executive Officer may prescribe from time to time.
4.8 Treasurer. Unless otherwise determined by the Board of Directors, the Chief Financial Officer shall be the Treasurer of the corporation. If an officer other than the Chief Financial Officer is designated Treasurer, the Treasurer shall have such powers and perform such duties as the Chief Executive Officer or the Board of Directors may prescribe from time to time.
4.9 Vice Presidents. The Vice President, if any, or Vice Presidents in the case there be more than one, shall have such powers and perform such duties as the Chief Executive Officer or the Board of Directors may prescribe from time to time. In the absence of the Chief Executive Officer, or in the event of the Chief Executive Officer's death, inability, or refusal to act, the Vice President, or in the event there would be more than one Vice President, the Vice Presidents in order designated by the Board of Directors, or in the absence of any designation, in the order of their election, shall perform the duties of the Chief Executive Officer, and when so acting, shall have all the powers of and be subject to all of the restrictions upon the Chief Executive Officer.
4.10 Delegation of Authority. Unless prohibited by a resolution approved by the affirmative vote of a majority of the directors present, an officer appointed by the Board may delegate some or all of the duties or powers of his or her office to other persons, provided that such delegation is in writing.

ARTICLE 5
Shares and Their Transfer
5.1 Certificates for Shares. All shares of the corporation shall be represented by certificates. Each certificate shall contain on its face (i) the name of the corporation, (ii) a statement that the corporation is incorporated under the laws of the State of Minnesota, (iii) the name of the person to whom it is issued, and (iv) the number and class of shares, and the designation of the series, if any, that the certificate represents. Certificates shall also contain any other information required by law or desired by the Board of Directors, and shall be in such form as shall be determined by the Board of Directors. Such certificates shall be signed by the Chief Executive Officer and Secretary, or by any other officer or agent of the corporation designated by resolution of the Board of Directors. All certificates for shares shall be consecutively numbered or otherwise
identified. The name and address of the person to whom the shares represented thereby are issued with the number of shares and date of issue shall be entered on the stock transfer books of the corporation. All certificates surrendered to the corporation or the transfer agent for transfer shall be cancelled and no new certificate shall be issued until the former certificate for a like number of shares shall have been surrendered and cancelled.
5.2 Transfer of Shares. Transfer of shares of the corporation shall be made only on the stock transfer books of the corporation by the holder of record thereof or by such holder's legal representative, who shall furnish proper evidence of authority to transfer, or by such holder's attorney thereunto authorized by power of attorney duly executed and filed with the Secretary of the corporation, and on surrender of such shares to the corporation or the transfer agent of the corporation. The corporation may treat, as the absolute owner of shares of the corporation, the person or persons in whose name or names the shares are registered on the books of the corporation.
5.3 Lost Certificates. Any shareholder claiming that a certificate for shares has been lost, destroyed or stolen shall make an affidavit of that fact in such form as the Board of Directors shall require and shall, if the Board of Directors so requires, give the corporation a sufficient indemnity bond, in form, in an amount, and with one or more sureties satisfactory to the Board of Directors, to indemnify the corporation against any claims which may be made against it on account of the reissue of such certificate. A new certificate shall then be issued to such shareholder for the same number of shares as the one alleged to have been destroyed, lost or stolen.

ARTICLE 6
Miscellaneous
6.1 Indemnification. Pursuant to obligations, limitations and procedures provided under Minnesota Statutes Section 302A.521, the corporation shall indemnify any director, officer or employee who is made or threatened to be made a party to a proceeding by reason of the former or present official capacity of the person against judgments, penalties, fines, including, without limitation, excise taxes assessed against the person with respect to an employee benefit plan, settlements, and reasonable expenses, including attorneys" fees and disbursements, incurred by the person in connection with the proceeding, if, with respect to the acts or omissions of the person complained of in the proceeding, the person:
(1) has not been indemnified by another organization or employee benefit plan for the same judgments, penalties, fines, including, without limitation, excise taxes assessed against the person with respect to an employee benefit plan, settlements, and reasonable expenses, including attorneys' fees and disbursements, incurred by the person in connection with the proceeding with respect to the same acts or omissions;
(2) acted in good faith;
(3) received no improper personal benefit and Minnesota Statutes Section 302A. 255 (which provides procedures to be followed in the event of certain conflicts of interest), if applicable, has been satisfied;
(4) in the case of a criminal proceeding, had no reasonable cause to believe the conduct was unlawful; and
(5) in the case of:
(i) a director, officer or employee of the corporation, reasonably believed that the conduct was in the best interests of the corporation, or
(ii) a director, officer, or employee who, while a director, officer or employee of the corporation, is or was serving at the request of the corporation or whose duties in that position involve or involved service as a trustee of an employee benefit plan, reasonably believed that the conduct was in the best interests of the participants or beneficiaries of the plan or not otherwise opposed to the best interests of the corporation, or
(ii) a director, officer, or employee who, while a director, officer or employee of the corporation, is or was serving at the request of the corporation or whose duties in that position involve or involved service as a director, officer, partner, trustee, employee, or agent of another organization, reasonably believed that the conduct was not opposed to the best interests of the corporation.
6.2 Contracts; Checks and Drafts. The Board of Directors may authorize such officers or agents as they shall designate to enter into contracts or execute and deliver instruments in the name of and on behalf of the corporation, and such authority may be general or confined to specific instances. All checks, drafts or other orders for the payment of money, notes, or other evidences of indebtedness issued in the name of the corporation shall be signed by such officers or agents of the corporation as shall be designated and in such manner as shall be determined from time to time by resolution of the Board of Directors.
6.3 Loans. The corporation shall not lend money to, guaranty the obligation of, become a surety for, or otherwise financially assist any person unless the transaction has been approved by the affirmative vote of a majority of directors present at a duly called meeting, and (i) is in the usual and regular course of business of the corporation, (ii) is with, or for the benefit of, a related corporation, an organization in which the corporation has a financial interest, an organization with which the corporation has a business relationship, or an organization to which the corporation has the power to make donations, (iii) is with, or for the benefit of, an officer or other employee of the corporation or a subsidiary, including an officer or employee who is a director of the corporation or a subsidiary, and may reasonably be expected, in the judgment of the Board of Directors, to benefit the corporation, or (iv) has been approved by the affirmative vote of the holders of two-thirds of the outstanding shares, including both voting and non-voting shares.
6.4 Dividends. The Board of Directors from time to time may declare, and the corporation may pay, dividends on its outstanding shares in the manner and upon the terms and conditions provided by law.
6.5 Reserves. There may be set aside out of any funds of the corporation available for dividends such sum or sums as the Board of Directors from time to time, in its absolute discretion, deems proper as a reserve or reserves to meet contingencies, for equalizing dividends, for repairing or maintaining any property of the corporation, for the purchase of additional property, or for such other purpose as the directors shall deem to be consistent with the interests of the corporation. The Board of Directors may modify or abolish any such reserve.
6.6 Fiscal Year. The fiscal year of the corporation shall be determined by resolution of the Board of Directors.
6.7 Amendments. Except as limited by the Articles of Incorporation, hese Bylaws may be altered or amended by the Board of Directors. Notwithstanding any other provisions of these Bylaws (and notwithstanding the fact that a lesser percentage of separate class vote may be specified by law), the affirmative vote of the holders of not less than seventy-five percent (75\%) of the votes entitled to be cast by the holders of all then outstanding shares of voting stock, voting together as a single class, shall be required to amend or repeal, or adopt any provisions inconsistent with Article 3.
6.8 Shareholder Agreements. In the event of any conflict or inconsistency between these Bylaws, or any amendment thereto, and the terms of any shareholder control agreement as defined in Minnesota Statutes Section 302A.457, whenever adopted, the terms of such shareholder control agreement shall control.

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The undersigned, Secretary of Entegris, Inc., a Minnesota corporation, does hereby certify that the foregoing Bylaws were adopted by the Board of Directors on March 13-14, 2000.

July 13, 2000

| Name of Subsidiary | Jurisdiction of Incorporation | Ownership |
| :---: | :---: | :---: |
| Fluoroware, Inc. | Minnesota | 100\% |
| Empak, Inc. | Minnesota | 100\% |
| Empak (Entegris) Malaysia SDN BHD | Malaysia | 100\% |
| Empak Korea Yohan Hoesa | Korea | 100\% |
| Empak Hanbal Korea | Korea | 100\% |
| Entegris Europa, GmbH | Germany | 100\% |
| Nippon Fluoroware, K.K. | Japan | 51\% |
| Fluoroware PEI, Inc. | Minnesota | 100\% |
| Fluoroware Jamaica, FSC | Jamaica | 100\% |
| Fluoroware South East Asia, Ltd Pte | Singapore | 100\% |
| Fluoroware Valqua Japan, K.K. | Japan | 51\% |
| Entegris Upland, Inc. | California | 100\% |
| Oregon Labs, Inc. | Oregon | 96\% |


| YEAR | YEAR |  |
| :---: | :---: | :---: |
|  | AUG-26-2000 | AUG-28-1999 |
|  | AUG-29-1999 | AUG-30-1998 |
|  | AUG-26-2000 | AUG-28-1999 |
|  | 102,973 | 16,411 |
|  | 0 | 0 |
|  | 66,652 | 44,099 |
|  | 2,524 | 1,205 |
|  | 41,325 | 35,047 |
|  | 221,010 | 105,365 |
|  | 248,324 | 242,924 |
|  | 140,591 | 125,300 |
|  | 352,964 | 242,064 |
|  | 62,544 | 56,505 |
|  | 10,822 | 48,023 |
|  | 0 | 0 |
|  | 0 | 0 |
|  | 683 | 184 |
|  | 267,357 | 21,071 |
| 352,964 | 242,064 |  |
|  | 343,465 | 241,952 |
|  | 343,465 | 241,952 |
|  | 178,760 | 150,102 |
|  | 178,760 | 150,102 |
|  | 0 | 0 |
|  | 1,493 | 213 |
|  | 2,422 | 5,498 |
|  | 78,894 | 11,297 |
|  | 28,375 | 4,380 |
|  | 51,724 | 5,729 |
|  | 0 | 0 |
|  | $(1,149)$ | 0 |
|  | 0 | 0 |
|  | 50,575 | 5,729 |
|  | 0.05 | (2.53) |
|  | 0.04 | (2.53) |

