
SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

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

DATE OF REPORT (DATE OF EARLIEST EVENT REPORTED): NOVEMBER 27, 2001

COMMISSION FILE NO.

MKS INSTRUMENTS, INC. (Exact name of Registrant as specified in its Charter)

MASSACHUSETTS04-2277512(State or other jurisdiction of
incorporation or organization)(IRS Employer Identification No.)SIX SHATTUCK ROAD, ANDOVER, MASSACHUSETTS01810(Address of principal executive offices)(Zip Code)

(978) 975-2350 (Registrant's telephone number, including area code)

This current report on Form 8-K provides financial information pertaining to the retroactive effect of the January 26, 2001 business combination of MKS Instruments, Inc. (the "Company") and Applied Science and Technology, Inc. ("ASTEX"), which was accounted for under the pooling of interest method of accounting.

ITEM 7. FINANCIAL STATEMENTS, PRO FORMA FINANCIAL INFORMATION AND EXHIBITS

(c) Exhibits

EXHIBIT NUMBER TITLE ----- 23.1 Consent of PricewaterhouseCoopers LLP 23.2 Consent of KPMG LLP 99.1 Consolidated **Financial Statements** of MKS Instruments, Inc. as of December 31, 2000 and 1999 and for the years ended December 31, 2000, 1999 and 1998 and Report of Independent Accountants thereon. 99.2 Management's Discussion and Analysis of Financial Condition and Results of Operations Reflecting the Merger of MKS Instruments, Inc. and Applied Science and Technology, Inc. --December 31, 2000 99.3 Schedule II --Valuation and Qualifying Accounts for MKS Instruments, Tnc.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

MKS INSTRUMENTS, INC.

/s/ Ronald C. Weigner Ronald C. Weigner Vice President and Chief Financial Officer

Dated: November 27, 2001

EXHIBIT NUMBER TITLE ----- 23.1 Consent of PricewaterhouseCoopers LLP 23.2 Consent of KPMG LLP 99.1 Consolidated Financial Statements of MKS Instruments, Inc. as of December 31, 2000 and 1999 and for the years ended December 31, 2000, 1999 and 1998 and Report of Independent Accountants thereon. 99.2 Management's Discussion and Analysis of Financial Condition and Results of Operations Reflecting the Merger of MKS Instruments, Inc. and Applied Science and Technology, Inc. --December 31, 2000 99.3 Schedule II --Valuation and Qualifying Accounts for MKS Instruments, Inc.

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 333-78069, 333-78071, 333-78073, 333-31224, 333-54486, 333-54488 and 333-54490) and Form S-3 (No. 333-34450) of MKS Instruments, Inc. of our report dated January 26, 2001 relating to the consolidated financial statements and the consolidated financial statement schedule of MKS Instruments, Inc. as of December 31, 2000 and 1999 and for the years ended December 31, 2000, 1999 and 1998, which appears in this Current Report on Form 8-K dated November 27, 2001.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts November 27, 2001 THE BOARD OF DIRECTORS APPLIED SCIENCE AND TECHNOLOGY, INC. AND SUBSIDIARIES:

We consent to the incorporation by reference in the registration statements (No. 333-78069, 333-78071, 333-78073, 333-31224, 333-54486, 333-54488 and 333-54490) on Form S-8 and No. 333-34450 on Form S-3 of MKS Instruments, Inc. of our report dated July 31, 2000, with respect to the consolidated balance sheets of Applied Science and Technology, Inc. and subsidiaries as of July 1, 2000 and June 26, 1999, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the years in the three-year period ended July 1, 2000, which appears in the Form 8-K of MKS Instruments, Inc., dated November 27, 2001.

/s/ KPMG LLP

Boston, Massachusetts November 27, 2001 MKS INSTRUMENTS, INC. CONSOLIDATED FINANCIAL STATEMENTS AS OF DECEMBER 31, 2000 AND 1999 AND FOR THE YEARS ENDED DECEMBER 31, 2000, 1999 AND 1998 To the Board of Directors and Shareholders of MKS Instruments, Inc.:

In our opinion, based upon our audits and the report of other auditors, the accompanying consolidated balance sheets and the related consolidated statements of income, stockholders' equity and cash flows present fairly, in all material respects, the financial position of MKS Instruments, Inc. and its subsidiaries at December 31, 2000 and 1999, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2000, in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, based upon our audits and the report of other auditors, the accompanying consolidated financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. These consolidated financial statements and the consolidated financial statement schedule are the responsibility of the Company's management; our responsibility is to express an opinion on these consolidated financial statements and the consolidated financial statement schedule based on our audits. We did not audit the financial statements and financial statement schedule of Applied Science and Technology, Inc., a wholly-owned subsidiary acquired on January 26, 2001 through a pooling-of-interests, at July 1, 2000 and June 26, 1999, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the years in the three-year period ended July 1, 2000, which statements reflect total assets of 41 percent and 32 percent of the related consolidated totals as of December 31, 2000 and 1999, respectively, and total revenues of 30 percent, 29 percent and 37 percent of the related consolidated totals for each of the three years in the period ended December 31, 2000. Those statements and financial statement schedule were audited by other auditors whose report thereon has been furnished to us, and our opinion expressed herein, insofar as it relates to the amounts included for Applied Science and Technology, Inc., is based solely on the report of the other auditors. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits and the report of other auditors provide a reasonable basis for our opinion.

/s/ PRICEWATERHOUSECOOPERS LLP

Boston, Massachusetts January 26, 2001 The Board of Directors and Stockholders Applied Science and Technology, Inc.:

We have audited the consolidated balance sheets of Applied Science and Technology, Inc. and subsidiaries as of July 1, 2000 and June 26, 1999, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the years in the three-year period ended July 1, 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 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 provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Applied Science and Technology, Inc. and subsidiaries as of July 1, 2000 and June 26, 1999, and the results of their operations and their cash flows for each of the years in the three-year period ended July 1, 2000, in conformity with accounting principles generally accepted in the United States of America.

/s/ KPMG LLP

Boston, Massachusetts July 31, 2000

CONSOLIDATED BALANCE SHEETS AS OF DECEMBER 31, 2000 AND 1999 (IN THOUSANDS, EXCEPT SHARE DATA)
2000 1999 ASSETS Current assets: Cash and cash equivalents \$123,082 \$ 67,489 Short-term
investments 17,904 26,387 Trade accounts receivable, net of allowance for doubtful accounts of \$1,954 and \$1,669 at December 31, 2000 and 1999,
respectively
Inventories
asset
assets 4,433 4,670
assets 319,636 199,575 Property, plant and equipment,
net 64,133 40,974 Long-term investments 17,100
1,063 Goodwill and acquired intangible assets
assets
assets
borrowings \$ 15,741
<pre>\$ 12,423 Current portion of long-term debt 2,783 7,346 Current portion of capital lease obligations 610 1,059 Accounts</pre>
payable 23,653 13,179 Accrued
compensation 17,003 11,826 Other accrued
expenses 14,588 10,401 Income taxes
payable
payable 3,350 Total current
liabilities
<pre>term debt 11,439 4,340 Long-term portion of capital lease obligations</pre>
<pre>liabilities 517 490 Commitments and contingencies (Note 7) Stockholders' equity: Preferred Stock, \$0.01 par value, 2,000,000 shares authorized; none issued and outstanding</pre>
value, 50,000,000 shares authorized; 36,645,665 and 33,388,671 shares issued and outstanding at December 31, 2000 and 1999, respectively 113 113 Additional paid-in capital 263,723 154,630
earnings
31,042 Shareholder receivable
Accumulated other comprehensive income

CONSOLIDATED STATEMENTS OF INCOME FOR THE YEARS ENDED DECEMBER 31, 2000, 1999 AND 1998 (IN THOUSANDS, EXCEPT PER SHARE DATA)

2000 1999 1998 ----- Net sales..... \$466,852 \$265,292 \$223,199 Cost of sales..... 261,456 162,783 138,771 ------ Gross profit..... 205,396 102,509 84,428 Research and development..... 37,323 22,975 23,390 Selling, general and administrative..... 71,205 51,474 45,097 Amortization of goodwill and acquired intangible assets.... 5,023 763 685 Restructuring charge..... -- 2,260 -- Purchase of in-process technology...... 310 -- 212 ----------- ---- Income from 25,037 15,044 Interest expense...... 1,390 1,378 1,679 Interest 2,803 810 Other income (expense), net..... (243) 905 447 ------- ----- Income before income taxes..... 96,110 27,367 14,622 ----- Provision for income taxes (Note 9)..... 35,850 4,581 3,415 ----- Net income..... Historical net income per share: Basic.... \$ 1.74 \$ 0.76 \$ 0.46 Diluted..... \$ 1.67 \$ 0.72 \$ 0.44 Historical weighted average common shares outstanding: Basic.... 34,596 29,991 24,229 Diluted..... 36,170 31,439 25,261 Pro forma data (unaudited): Historical income before income taxes..... \$ 27,367 \$ 14,622 Pro forma provision for income taxes assuming C corporation tax..... 10,206 5,557 ----- Pro forma net income..... \$ 17,161 \$ 9,065 ======= ====== Pro forma net income per share: Basic..... \$ 0.57 \$ 0.37 Diluted..... \$ 0.55 \$ 0.36 Pro forma weighted average common shares outstanding: Basic.... 29,991 24,229 Diluted..... 31,271 25,079

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

CONSOLIDATED STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2000, 1999 AND 1998 (IN THOUSANDS)
2000 1999 1998 cash flows from operating activities: Net
<pre>income\$ 60,260 \$ 22,786 \$ 11,207 Adjustments to reconcile net income to net cash provided by operating activities: Depreciation and amortization</pre>
14,875 9,490 8,984 Deferred taxes (2,828) (1,260) 5 Nonrecurring deferred tax credit
Other
(20,250) 12,952
(24,932) (1,272) 3,725 Other current assets 450 (1,569) 282 Accrued expenses
10,323 7,783 (4,476) Accounts payable 7,503 5,970 (5,579) Income taxes
<pre>payable 11,106 1,307 (724) Net cash provided by operating activities 40,008 20,393 25,486 Cash flows from investing activities: Purchases of short-term and long-term investments (46,598) (45,999) Maturities and sales of short-term and long- term</pre>
investments 39,044 18,654 1,800 Purchase of property, plant and equipment (32,168) (7,344) (6,136) Business combinations, net of cash acquired (23,921) (23) (3,683)
OtherNet cash (1,171) (1,598) 976 Net cash used in investing activities
borrowings Payments on short-term
borrowings
costs
<pre>distributions to stockholders</pre>
equivalents
<pre>(689) (495) (459) Increase in cash and cash equivalents 55,593 48,614 13,118 Cash and cash equivalents at beginning of year 67,489 18,875 5,757 Cash and cash equivalents at end of year \$123,082 \$ 67,489 \$ 18,875 ======= ==================== Cash paid during the year for:</pre>
Interest\$ 1,416 \$ 1,409 \$ 1,775 Income taxes
24,995 10,294 4,129 Noncash transactions during the year: Equipment acquired under capital leases

The accompanying notes are an integral part of the consolidated financial statements. 5

MKS INSTRUMENTS, INC. CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY FOR THE YEARS ENDED DECEMBER 31, 2000, 1999 AND 1998 (IN THOUSANDS, EXCEPT SHARE DATA) COMMON STOCK -----CLASS A CLASS B COMMON STOCK ---------- SHARES AMOUNT SHARES AMOUNT SHARES AMOUNT ----------- Balance at December 31, 1997..... 7,766,910 \$ 40 10,286,255 \$ 73 5,198,439 \$ -- Distribution to stockholders..... Issuance of common stock and warrants..... 2 1,401,857 Tax benefit of stock options exercised..... Note that the second s income..... Other comprehensive income, net of taxes: Foreign currency translation adjustment..... Comprehensive income..... ------ -31, 1998...... 7,766,910 40 10,286,257 73 6,600,296 -- Distributions to stockholders..... Distributions payable to stockholders..... Conversion to common stock..... (7,766,910) (40) (10,286,257) (73) 18,053,167 113 Issuance of common stock from MKS Initial Public Offering...... 6,375,000 Common stock issued in ASTeX stock offering, net of issuance costs..... 1,763,870 Issuance of common stock from exercise of stock options and warrants and Employee Stock Purchase Plan..... 374,961 Tax benefit from exercise of stock options..... Retirement of common stock..... (16,825) Stock option compensation..... Stock issued in pooling of interest acquisition..... 238,202 Shareholder receivable..... Comprehensive income: Net income..... Other comprehensive income, net of taxes: Nonrecurring deferred tax charge to comprehensive income (Note 9)..... Impact of adopting SFAS No. 133..... Changes in value of financial instruments designated as cash flow hedges..... Foreign currency translation adjustment..... Comprehensive 31, 1999..... 33,388,671 113 Adjustment to Distributions payable to stockholders..... Issuance of common stock..... 1,917,250 Issuance of common stock from exercise of stock options and Employee Stock Purchase Plan..... 787,929 Tax benefit from exercise of stock options..... Stock and stock options issued in acquisition of businesses..... 551,815 Shareholder receivable..... Comprehensive income: Net income..... Other comprehensive income, net of taxes: Changes in value of financial instruments designated as cash flow hedges..... Foreign currency translation adjustment..... Comprehensive income..... ------ ---- ---- Balance at December 31, 2000..... -- \$ -- -- \$ --36,645,665 \$113 ====== ==== ===== ==== ACCUMULATED ADDITIONAL OTHER PAID-IN RETAINED SHAREHOLDER

COMPREHENSIVE COMPREHENSIVE CAPITAL EARNINGS RECEIVABLE INCOME INCOME ------- ----- Balance at December 31, 1997.....\$ 27,711 \$ 47,175 \$ (148) \$ 883 Distribution to Issuance of common stock and warrants..... 16,098 Tax benefit of stock options exercised..... 276 Comprehensive income Net income..... 11,207 \$11,207 Other comprehensive income, net of taxes: Foreign currency translation adjustment..... 909 909 ----- Comprehensive income..... \$12,116 ----31, 1998..... 44,085 52,232 (148) 1,792 Distributions to stockholders..... (40,000) Distributions payable to stockholders..... (3,350) Conversion to common stock..... Issuance of common stock from MKS Initial Public Offering...... 82,062 Common stock issued in ASTeX stock offering, net of issuance costs..... 23,805 Issuance of common stock from exercise of stock options and warrants and Employee Stock Purchase Plan..... 2,219 Tax benefit from exercise of stock options..... 1,556 Retirement of common stock..... (195) Stock option compensation..... 261 Stock issued in pooling of interest acquisition..... 837 (626) Shareholder Comprehensive income: Net income..... 22,786 22,786 Other comprehensive income, net of taxes: Nonrecurring deferred tax charge to comprehensive income (Note 9)..... (497) (497) Impact of adopting SFAS No. 133..... (16) (16) Changes in value of financial instruments designated as cash flow hedges..... (212) (212) Foreign currency translation adjustment...... (163) (163) ------Comprehensive income...... \$21,898 -------- ======= Balance at December 31, 1999..... 154,630 31,042 (1,004) 904 Adjustment to Distributions payable to stockholders..... 1,933 Issuance of common of common stock from exercise of stock options and Employee Stock Purchase Plan..... 6,477 Tax benefit from exercise of stock options..... 5,273 Stock and stock options issued in acquisition of businesses..... 24,136 Shareholder receivable..... 1,004 Comprehensive income: Net income..... 60,260 60,260 Other comprehensive income, net of taxes: Changes in value of financial instruments designated as cash flow hedges..... 603 603 Foreign currency translation adjustment..... (1,056) (1,056) ------Comprehensive income..... \$59,807 ------ ----- Balance at December 31, 2000..... \$263,723 \$ TOTAL STOCKHOLDERS' EQUITY ----- Balance at December 31, 1997.....\$ 75,734 Distribution to stockholders..... (6,150) Issuance of common stock and warrants..... 16,098 Tax benefit of

stock options exercised...... 276 Comprehensive income Net income..... 11,207 Other comprehensive income, net of taxes: Foreign Comprehensive income..... ------Balance at December 31, 1998...... 98,074 Distributions Distributions payable to common stock..... Issuance of common stock from MKS Initial Public Offering..... 82,062 Common stock issued in ASTeX stock offering, net of issuance costs..... 23,805 Issuance of common stock from exercise of stock options and warrants and Employee Stock Purchase Plan..... 2,219 Tax benefit from exercise of stock options..... 1,556 Retirement of common stock..... (195) Stock option compensation..... 261 Stock issued in pooling of interest acquisition..... 211 Shareholder Comprehensive income: Net income..... 22,786 Other comprehensive income, net of taxes: Nonrecurring deferred tax charge to comprehensive income (Note 9)..... (497) Impact of adopting SFAS No. 133..... (16) Changes in value of financial instruments designated as cash flow hedges..... (212) Foreign currency translation adjustment..... (163) Comprehensive income..... ------Balance at December 31, 1999..... 185,685 Adjustment to Distributions payable to stockholders..... 1,933 Issuance of common of common stock from exercise of stock options and Employee Stock Purchase Plan..... 6,477 Tax benefit from exercise of stock options..... 5,273 Stock and stock options issued in acquisition of businesses..... 24,136 Shareholder receivable..... 1,004 Comprehensive income: Net income..... 60,260 Other comprehensive income, net of taxes: Changes in value of financial instruments designated as cash flow hedges..... 603 Foreign currency translation adjustment..... (1,056) Comprehensive income..... ------Balance at December 31, 2000.....\$357,522 =======

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

1. DESCRIPTION OF BUSINESS

MKS Instruments, Inc. ("MKS") is a worldwide developer, manufacturer, and supplier of instruments and components that are used to measure, control and analyze gases in semiconductor manufacturing and similar industrial manufacturing processes. MKS's products include pressure and flow measurement and control instruments; vacuum gauges, valves and components; and gas analysis instruments. MKS is subject to risks common to companies in the semiconductor industry including, but not limited to, the highly cyclical nature of the semiconductor industry leading to recurring periods of over supply, development by MKS or its competitors of new technological innovations, dependence on key personnel and the protection of proprietary technology. On January 26, 2001 MKS completed its acquisition of Applied Science and Technology, Inc. ("ASTEX") in a transaction accounted for under the pooling of interests method of accounting. ASTEX develops and manufactures components and sub-systems using reactive gas and power source technologies for semiconductor, medical, and industrial applications and complete process systems for electronic applications.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

BASIS OF PRESENTATION

The consolidated financial statements include the accounts of MKS, ASTeX, and their subsidiaries (together, the "Company"). All significant intercompany accounts and transactions have been eliminated in consolidation. These consolidated financial statements combine the historical consolidated financial statements of the Company for all periods presented and the ASTeX share information has been converted to the MKS share equivalent. These consolidated financial statements combine the historical financial statements of MKS for the years ended December 31, 2000, 1999 and 1998 with the historical financial statements of ASTeX for the fiscal years ended July 1, 2000, June 26, 1999 and June 27, 1998, respectively. The following table presents details of the results of operations for the separate companies for the fiscal years ended 2000, 1999 and 1998, preceding the merger:

FISCAL YEAR ENDED
2000 1999 1998 Net
sales:
MKS
\$326,955 \$187,083 \$139,763
ASTeX
139,897 78,209 83,436
\$466,852 \$265,292 \$223,199 ======= =======
======= Net income (loss):
MKS
\$ 46,234 \$ 24,037 \$ 7,186
ASTeX
14,026 (1,251) 4,021
\$ 60,260 \$ 22,786 \$ 11,207 ======= ========
=======

As a result of conforming dissimilar fiscal year-ends, the ASTeX results of operations for the six-month period ended December 31, 2000 are excluded from these consolidated financial statements. The

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

following is information related to the ASTeX financial results for the six-month period ended December 31, 2000:

Net sales	\$89,193
Net income	5,968
Net cash used by operating activities	
Net cash provided by investing activities	
Net cash provided by financing activities	43

All fees and expenses related to the merger and the integration of the combined companies will be expensed as required under the pooling of interests accounting method. These expenses have not been reflected in the accompanying consolidated statement of income, but will be reflected in the consolidated statement of income for the year ended December 31, 2001.

HISTORICAL AND PRO FORMA (UNAUDITED) NET INCOME PER SHARE

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

Historical net income per share is not meaningful because of MKS's conversion from an S corporation to a C corporation upon the closing of its initial public offering in 1999. Historical net income has been adjusted for the pro forma provision for income taxes calculated assuming the Company was subject to income taxation as a C corporation, at a pro forma tax rate of 38.0% in 1998 and 37.3% in 1999.

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

FOR THE YEAR ENDED DECEMBER 31, -
2000 1999 1998
HISTORICAL PRO FORMA HISTORICAL PRO FORMA HISTORICAL -
Net
income \$60,260 \$17,161 \$22,786 \$ 9,065 \$11,207 Shares used in net income per common share
basic 34,596 29,991 29,991 24,229 24,229 Effect of dilutive securities: Employee and director
stock options
0ptions 1,574 1,280 1,448 850 1,032 ======= =============================
====== Shares used in net income per common share
diluted
<pre>====== Net income per common sharebasic \$ 1.74 \$ 0.57 \$ 0.76 \$ 0.37 \$ 0.46 Net income per</pre>
1.67 \$ 0.55 \$ 0.72 \$ 0.36 \$ 0.44

For purposes of computing diluted earnings per share, weighted average common share equivalents do not include stock options with an exercise price greater than the average market price of the common shares during the period. Options to purchase approximately 474,000, 374,000, and 61,000 shares of common stock were outstanding during 2000, 1999 and 1998, respectively, but were not included in the calculation of diluted net income per common share because the option price was greater than the average market price of the common shares during the period.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

FOREIGN EXCHANGE

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

REVENUE RECOGNITION

Revenue from product sales is generally recognized upon shipment provided that persuasive evidence of an arrangement exists, the sales price is fixed or determinable, collectibility is reasonably assured and title and risk of loss have passed to the customer. The Company has no obligations to customers after the date products are shipped other than pursuant to warranty obligations. The Company provides for the estimated costs to fulfill customer warranty and other contractual obligations upon the recognition of the related revenue. Shipping and handling fees, if any, billed to customers are recognized as revenue. The related costs are recognized in cost of sales.

CASH AND CASH EQUIVALENTS AND INVESTMENTS

All highly liquid investments with an original maturity of three months or less at the date of purchase are considered to be cash equivalents.

Cash equivalents consist of the following at December 31:

2000 1999 cash and money
market instruments\$
36,687 \$28,176 Commercial
paper
74,895 31,313 Federal government and
government agency obligations 1,000 6,000
State and municipal government
obligations 2,000 Corporate
obligations
8,500 2,000 \$123,082 \$67,489
======= =======

Short-term available-for-sale investments maturing within one year consist of the following at December 31:

2000 1999 ----- Federal government and government agency obligations.... \$10,101 \$16,245 Corporate

obligations.....

1,000 5,501 Commercial

Long-term available-for-sale investments maturing within two years consist of the following at December 31:

2000 1999 -----Federal government and government agency obligations..... \$ 4,000 \$1,063 State and municipal government obligations..... 13,100 -----\$17,100 \$1,063 ====== ======

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

The appropriate classification of investments in debt and equity securities is determined at the time of purchase. Debt securities that the Company has both the intent and ability to hold to maturity are carried at amortized cost. Debt securities that the Company does not have the intent and ability to hold to maturity or equity securities are classified as "available-for-sale" and are carried at fair value. Marketable equity securities are carried at fair value and classified as available-for-sale. Unrealized gains and losses on securities classified as available-for-sale are included in accumulated other comprehensive income in consolidated stockholders' equity and were not material as of December 31, 2000 and 1999. The cost of securities sold is based on the specific identification method.

INVENTORIES

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

PROPERTY, PLANT AND EQUIPMENT

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

Depreciation is provided on the straight-line method over the estimated useful lives of 20 to 31 1/2 years for buildings and three to seven years for machinery and equipment. Leasehold improvements are amortized over the shorter of the lease term or the estimated useful life of the leased asset.

INTANGIBLE ASSETS

Intangible assets resulting from the acquisitions of entities accounted for using the purchase method of accounting are estimated by management based on the fair value of assets received. These include acquired customer lists, workforce, technology, patents, trade name, covenants not to compete and goodwill. Intangible assets are amortized from three to ten years on a straight-line basis which represents the estimated periods of benefit.

IMPAIRMENT OF LONG-LIVED ASSETS

The Company evaluates the recoverability of its long-lived assets in accordance with Statement of Financial Accounting Standards "SFAS" No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of." SFAS No. 121 requires recognition of impairment of long-lived assets in the event the net book value of such assets exceeds the future undiscounted cash flows attributable to such assets.

RESEARCH AND DEVELOPMENT

Research and development costs are expensed as incurred.

PATENTS

Patent costs are amortized over their estimated useful life of five years.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

NEW ACCOUNTING PRONOUNCEMENTS

In December 1999, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 101 ("SAB 101"), "Revenue Recognition." SAB 101 summarizes the staff's view in applying generally accepted accounting principles to revenue recognition. The Company adopted SAB 101 in fiscal year 2000. The adoption did not have a material affect on its financial statements.

USE OF ESTIMATES

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

3. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

FOREIGN EXCHANGE RISK MANAGEMENT

The Company adopted the provisions of SFAS No. 133 effective April 1, 1999. The impact of adopting SFAS No. 133 was the recording of an unrealized loss of \$16,000, net of taxes, in other comprehensive income. The Company hedges a portion of its forecasted foreign currency denominated intercompany sales of inventory, over a maximum period of fifteen months, using forward exchange contracts and currency options primarily related to Japanese and European currencies. These derivatives are designated as cash-flow hedges, and changes in their fair value are carried in accumulated other comprehensive income until the underlying forecasted transaction occurs. Once the underlying forecasted transaction is realized, the appropriate gain or loss from the derivative designated as a hedge of the transaction is reclassified from accumulated other comprehensive income to cost of sales. The Company utilizes an interest rate swap to fix the interest rate on certain variable term loans in order to minimize the effect of changes in interest rates on earnings. During 2000 and 1999, net realized gains of \$6,000 and net realized losses of \$104,000, respectively, were recorded in earnings. As of December 31, 2000, the amount that will be reclassified from accumulated other comprehensive income to earnings over the next twelve months is an unrealized gain of \$375,000 net of taxes. The ineffective portion of the derivatives is primarily related to option premiums, is recorded in cost of sales, and was \$304,000 in 2000.

Prior to the adoption of SFAS No. 133, the Company entered into forward exchange contracts and local currency purchased options to hedge a portion of its probable anticipated, but not firmly committed transactions. The anticipated transactions whose risks were being hedged were the intercompany sales of inventory by the U.S. parent to the foreign subsidiary payable in the foreign subsidiary's local currency. The time period of the anticipated transactions that were hedged generally approximated one year. The Company also used forward exchange contracts to hedge firm commitments. Market value gains and losses on forward exchange contracts were recognized immediately in earnings unless a firm commitment existed. Market value gains and premiums on local currency purchased options on probable anticipated transactions and market value gains and losses on forward exchange contracts hedging firm commitments were recognized when the hedged transactions occurred. These contracts, which related primarily to Japanese and European currencies generally had terms of twelve months or less. Forward exchange contracts received hedge accounting on firmly committed transactions when they were designated as a hedge of the designated currency exposure and were effective in minimizing such exposure. Options received hedge accounting on probable anticipated transactions when they were designated as a hedge of the currency exposure and were effective in minimizing such exposure.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

Realized and unrealized gains and losses on forward exchange contracts and local currency purchased option contracts that do not qualify for hedge accounting are recognized immediately in earnings. The cash flows resulting from forward exchange contracts and local currency purchased options that qualify for hedge accounting are classified in the statement of cash flows as part of cash flows from operating activities. Cash flows resulting from forward exchange contracts and local currency purchased options that do not qualify for hedge accounting are classified in the statement of cash flows as investing activities. The Company does not hold or issue derivative financial instruments for trading purposes.

Forward exchange contracts with notional amounts totaling \$1,500,000, \$4,000,000 and \$8,000,000 to exchange foreign currencies for U.S. dollars were outstanding at December 31, 2000, 1999 and 1998, respectively. Of such forward exchange contracts, \$1,500,000, \$4,000,000 and \$7,800,000 to exchange Japanese yen for U.S. dollars, were outstanding at December 31, 2000, 1999, and 1998, respectively. Local currency purchased options with notional amounts totaling \$25,390,000, \$11,800,000 and \$10,221,000 to exchange foreign currencies for U.S. dollars were outstanding at December 31, 2000, 1999 and 1998, respectively.

Foreign exchange gains of \$37,000 and \$415,000 and foreign exchange losses of \$168,000 on forward exchange contracts which did not qualify for hedge accounting were recognized in earnings during 2000, 1999 and 1998, respectively, and are classified in Other income, net. Gains and losses on forward exchange contracts and local currency purchased options that qualify for hedge accounting are classified in cost of goods sold and totaled a gain of \$6,000, a loss of \$104,000 and a gain of \$310,000 for the years ended December 31, 2000, 1999 and 1998, respectively.

The fair values of forward exchange contracts at December 31, 2000 and 1999, determined by applying period end currency exchange rates to the notional contract amounts, amounted to an unrealized gain of \$164,000 and an unrealized loss of \$547,000, respectively. The fair value of local currency purchased options at December 31, 2000 and 1999, which were obtained through dealer quotes were immaterial.

The Company recorded a foreign exchange remeasurement gain on intercompany payables of \$1,000,000 in other income, net in 1998. The Company has hedged certain intercompany payables with currency options. Since these derivatives hedge existing amounts that are denominated in foreign currencies, the options do not qualify for hedge accounting under SFAS No. 133.

INTEREST RATE RISK MANAGEMENT

The Company utilizes an interest rate swap to fix the interest rate on certain variable rate term loans in order to minimize the effect of changes in interest rates on earnings. In 1998, the Company entered into a four-year interest rate swap agreement on a declining notional amount basis which matches with the scheduled principal payments with a major financial institution for the notional amount of \$10,528,000 equal to the term loans described in Note 6. Under the agreement, the Company pays a fixed rate of 5.85% on the notional amount and receives LIBOR. The interest differential payable or accruable on the swap agreement is recognized on an accrual basis as an adjustment to interest expense. The criteria used to apply hedge accounting for this interest rate swap is based upon management designating the swap as a hedge against the variable rate debt combined with the terms of the swap matching the underlying debt including the notional amount, the timing of the interest reset dates, the indices used and the paydates. At December 31, 2000, the fair value of this interest rate swap, which represents the amount the Company would receive or pay to terminate the agreement, is not material, based on dealer quotes. The variable rate received on the swap at December 31, 2000 was 6.82%.

The market risk exposure from the interest rate swap is assessed in light of the underlying interest rate exposures. Credit risk exposure from the swap is minimized as the agreement is with a major financial

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

institution. The Company monitors the creditworthiness of this financial institution and full performance is anticipated.

CONCENTRATIONS OF CREDIT RISK

The Company's significant concentrations of credit risk consist principally of cash and cash equivalents, investments, forward exchange contracts, and trade accounts receivable. The Company maintains cash and cash equivalents with financial institutions including the bank it has borrowings with. The Company maintains investments primarily in U.S. Treasury and government agency securities and corporate debt securities, rated AA or higher, which have minimal credit risk. The Company places forward currency contracts with high credit-quality financial institutions in order to minimize credit risk exposure. Concentrations of credit risk with respect to accounts receivable are limited due to the large number of diverse and geographically dispersed customers. Credit is extended for all customers based on financial condition and collateral is not required.

FAIR VALUE OF FINANCIAL INSTRUMENTS

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

4. INVENTORIES

Inventories consist of the following at December 31:

2000 1999 ------ Raw material..... \$23,765 \$14,550 Work-inprocess..... 20,856 10,484 Finished goods..... 24,544 15,035 ------ \$69,165 \$40,069

5. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consist of the following at December 31:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

Depreciation and amortization of property, plant and equipment totaled \$9,785,000, \$8,727,000 and \$8,299,000 for the years ended December 31, 2000, 1999 and 1998, respectively. During the year ended December 31, 2000, the Company retired \$6,727,000 of fully depreciated property, plant and equipment.

6. DEBT

CREDIT AGREEMENTS AND SHORT-TERM BORROWINGS

In February 1996, the Company entered into loan agreements with two banks, which provided access to a revolving credit facility. The revolving credit facility provided for uncollateralized borrowings up to \$30,000,000, and expired on December 31, 1999. Interest on borrowings was payable quarterly at either the banks' base rate or the LIBOR Rate, as defined in the agreement, at the Company's option. At December 31, 1999, the Company had no borrowings under this revolving credit facility.

Effective January 1, 2000, the Company entered into a loan agreement with the same two banks, which provides access to a revolving credit facility. The revolving credit facility provides for uncollateralized borrowings up to \$40,000,000, and expires April 30, 2001. The Company is currently in negotiations to extend this credit line. Interest on borrowings is payable quarterly at either the banks' base rate, or the LIBOR Rate, as defined in the agreement. At December 31, 2000, the Company had no borrowings under this revolving credit facility.

The Company may borrow up to \$8,000,000 from a bank under an unsecured demand line of credit with interest at the bank's prime rate. Borrowings under the line are limited to 100% of the Company's cash balance plus 80% of domestic accounts receivable outstanding less than 90 days. The Company may fix a portion or all of the outstanding balances under the line for periods up to the remaining term of the line. The line may be used for standby letters of credit.

There are fees of 1.5% for any standby letters of credit and 0.25% on the unused portion of the line. There were no outstanding borrowings at the end of 2000. The line of credit expires in April 2003. No security pledges of assets can be granted nor dividends paid without the approval of the bank that issued the unsecured line of credit.

Additionally, certain of the Company's foreign subsidiaries have lines of credit and short-term borrowing arrangements with various financial institutions which provide for aggregate borrowings as of December 31, 2000 of up to \$17,533,000, which generally expire and are renewed at six month intervals. At December 31, 2000 and 1999, total borrowings outstanding under these arrangements were \$15,719,000 and \$12,423,000, respectively, at interest rates ranging from 1.35% to 1.875% and 1.2% to 1.7%, respectively. A portion of the foreign short-term borrowings are guaranteed by a domestic bank.

LONG-TERM DEBT

Long-term debt consists of the following at December 31:

2000 1999 Term
loans
\$ 2,620 \$ 8,862 Mortgage
notes
11,602 2,824 Total long-term
debt 14,222
11,686 Less: current
portion 2,783
7,346 Long-term debt less current
portion\$11,439 \$ 4,340
================

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

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

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

On March 6, 2000, the Company entered into a mortgage note payable with a bank to borrow \$10,000,000 to finance the purchase of land and a building. Principal and interest is being paid in monthly installments of \$119,000 with the final payments due in March 2007.

In connection with the purchase of Telvac Engineering, Ltd., the Company issued term loans of \$752,000. Principal payments of \$51,000 are due on an annual basis through December 1, 2004 with the remaining principal due on May 1, 2005. Interest is payable semi-annually at the UK base rate.

At December 31, 2000, the interest rates in effect for the outstanding term loan and mortgage note borrowings ranged from 6.0% to 9.5% and was 7.4% at December 31, 1999.

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

The Company has loans outstanding from various foreign banks in the form of mortgage notes at interest rates ranging from 2.0% to 6.1%. Principal and interest are payable in monthly installments through 2010. The loans are collateralized by mortgages on certain of the Company's foreign properties.

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

YEAR ENDING DECEMBER 31,

2001	\$ 2,783
2002	2,753
2003	1,839
2004	
2005	2,142
Thereafter	2,862
	\$14,222
	=======

7. COMMITMENTS AND CONTINGENCIES

The Company leases certain of its facilities and machinery and equipment under capital and operating leases expiring in various years through 2002 and thereafter. Generally, the facility leases require the Company

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

to pay maintenance, insurance and real estate taxes. Rental expense under operating leases totaled \$4,623,000, \$4,289,000 and \$3,304,000 for the years ended December 31, 2000, 1999 and 1998, respectively.

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

OPERATING CAPITAL LEASES LEASES YEAR ENDING DECEMBER 31,
2001
\$ 3,692 \$ 675
2002
2003
2004 1,392 106
2005
Thereafter
payments\$11,824 1,686
======= Less: amounts representing
interest 129 Present
value of minimum lease payments 1,557 Less: current
portion 610
Long-term
portion \$ 947
=====

Prior to its initial public offering, the Company entered into a Tax Indemnification and S Corporation Distribution Agreement with its then existing stockholders (the "Pre-IPO stockholders"). The agreement includes provisions for the payment, with interest, by the Pre-IPO stockholders or MKS, as the case may be, for the difference between the \$40,000,000 distributed as an estimate of the amount of the accumulated adjustments account as of April 4, 1999, which is the date the Company's S Corporation status was terminated, and the actual amount of the accumulated adjustments account on that day. The actual amount of the accumulated adjustments account was \$41,416,619. Accordingly, the Company made an additional distribution of \$1,416,619, plus interest of \$177,524, to the Pre-IPO stockholders during the three months ended September 30, 2000. The amount of the additional distribution payable had been estimated to be \$3,350,000. This estimated amount was charged directly to retained earnings during 1999 and had no impact on net income or earnings per share. The difference between the actual additional distribution and the estimated additional distribution was credited directly to retained earnings during the three months ended September 30, 2000 and had no impact on net income or earnings per share. The amount of the accumulated adjustments account can be affected by future income tax audits of MKS. If any audit increases or decreases the accumulated adjustments account, MKS or the Pre-IPO stockholders, as the case may be, will also be required to make a payment, with interest, of such differences to the other party. No shareholders, other than the Pre-IPO stockholders, are parties to the Tax Indemnification and S Corporation Distribution Agreement.

8. STOCKHOLDERS' EQUITY

COMMON STOCK

In March 1999, the Company amended its Articles of Organization to: i) eliminate the authorized shares of Class A Common Stock and Class B Common Stock; ii) increase the authorized number of shares of Common Stock to 50,000,000 shares; iii) authorize 2,000,000 shares of Preferred Stock, \$0.01 par value per share; and iv) provide that each outstanding share of Class A Common Stock and Class B Common Stock be converted into one share of Common Stock.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

On March 30, 2000, ASTEX completed the registration and sale of 1,917,250 shares of common stock at \$40.42 per share. The net proceeds from the offering were approximately \$73,200,000.

On April 5, 1999 MKS closed the initial public offering of its Common Stock. In connection with this offering and the exercise of an over-allotment option by the underwriters, MKS sold 6,375,000 shares of Common Stock at a price of \$14.00 per share. The net proceeds to MKS were approximately \$82,000,000. Underwriting discounts and commissions were approximately \$6,200,000 and other offering costs were approximately \$1,000,000.

On April 5, 1999 MKS distributed 40,000,000, which was the estimated amount of the MKS undistributed S corporation earnings as of the day prior to the closing of the offering.

On March 5, 1999, ASTEX completed the registration and sale of 1,533,800 shares of common stock at \$14.34 per share. On April 6, 1999, the underwriters exercised their over-allotment option to purchase an additional 230,070 shares of common stock. The net proceeds from the offering were approximately \$23.8 million.

In 1998, ASTeX announced that it had met the requirements for the redemption of redeemable warrants issued in connection with the ASTeX initial public offering and called the warrants for redemption. 2,082,451 redeemable warrants and 133,088 underwriter warrants were converted into 1,297,147 shares of common stock. The net proceeds were \$15,234,000.

STOCK PURCHASE PLAN

The Company's 1999 Employee Stock Purchase Plan (the "Purchase Plan") authorizes the issuance of up to an aggregate of 450,000 shares of Common Stock to participating employees. Offerings under the Purchase Plan commence on June 1 and December 1 and terminate, respectively, on November 30 and May 31. Under the Purchase Plan, eligible employees may purchase shares of Common Stock through payroll deductions of up to 10% of their compensation. The price at which an employee's option is exercised is the lower of (1) 85% of the closing price of the Common Stock on the NASDAQ National Market on the day that each offering commences or (2) 85% of the closing price on the day that each offering terminates. During 2000 and 1999, the Company issued 83,118 and 36,520 shares, respectively, of Common Stock to employees who participated in the Purchase Plan at exercise prices of \$21.04 and \$12.86 in 2000 and at an exercise price of \$12.94 per share in 1999. As of December 31, 2000, there were 330,362 shares reserved for issuance.

The Company's Amended and Restated 1999 Foreign Employee Stock Purchase Plan (the "Foreign Purchase Plan") authorizes the issuance of up to an aggregate of 50,000 shares of Common Stock to participating employees. The initial offering under the Foreign Purchase Plan commenced on March 1, 2000 and terminated May 31, 2000. Additional offerings under the Foreign Purchase Plan commence on June 1 and December 1 and terminate, respectively, on November 30 and May 31. Under the Foreign Purchase Plan, eligible employees may purchase shares of Common Stock through payroll deductions of up to 10% of their compensation. The price at which an employee's option is exercised is the lower of (1) 85% of the closing price of the Common Stock on the NASDAQ National Market on the day that each offering commences or (2) 85% of the closing price on the day that each offering terminates. During 2000, the Company issued 7,248 shares of Common Stock to employees who participated in the Foreign Purchase Plan at exercise prices of \$33.47 and \$12.86 per share. As of December 31, 2000, there were 42,752 shares reserved for issuance.

STOCK OPTION PLANS

On January 9, 1998, the stockholders of MKS approved the following: (1) an increase in the number of shares that may be granted under the 1995 Stock Incentive Plan to 3,750,000 shares of common stock; (2) the adoption of the 1997 Director Stock Option Plan pursuant to which options may be granted to purchase up to

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

an aggregate of 300,000 shares of common stock; (3) the adoption of the 1997 Employee Stock Purchase Plan pursuant to which MKS may issue up to an aggregate of 450,000 shares of common stock; and (4) that 3,750,000 shares, 300,000 shares, and 450,000 shares of common stock be reserved for issuance under the 1995 Stock Incentive Plan, the 1997 Director Stock Option Plan, and the 1997 Employee Stock Purchase Plan, respectively. The 1997 Employee Stock Purchase Plan was amended and restated on April 22, 1999, and the Plan's name was changed to the Amended and Restated 1999 Employee Stock Purchase Plan.

In May 2000, the stockholders of the Company approved an annual increase in the number of shares that may be granted under the 1995 Stock Incentive Plan of 4% of the total shares of the Company's stock on July 1 of each year. The annual increase will occur until such time as the aggregate number of shares which may be issued under the Plan is 9,750,000 shares, subject to adjustment for certain changes in MKS' capitalization.

MKS grants options to employees under the 1995 Stock Incentive Plan (the "Plan") and to directors under the 1996 Director Stock Option Plan and the 1997 Director Stock Option Plan (the "Director Plans").

ASTEX adopted the 1993 Stock Option Plan in fiscal 1994 and in fiscal 1995, adopted the 1994 Formula Stock Option Plan to award stock options to nonemployee directors of the Company (the "ASTEX Plans"). The ASTEX Plans are administered by the Company's board of directors and the ASTEX options are exercisable for Company stock. At the end of 2000, 1,322,041 options to purchase Company common stock were reserved for issuance under the ASTEX Plans.

Effective August 26, 1998, ASTEX repriced all of its stock options which had been granted since June 29, 1997 to the closing market price on that date, which was \$7.82 per share. Options which had been granted to directors of the Company during the same period were not repriced.

At December 31, 2000, 1,428,846 options to purchase shares of Company common stock were reserved for issuance under the Plan. At December 31, 2000, under the Director Plans, options to purchase 210,000 shares of common stock were reserved for issuance. Stock options are granted at 100% of the fair value of the Company's common stock. Generally, stock options granted under the Plan prior to 2000 vest 20% after one year and 5% per quarter thereafter, and expire 10 years after the grant date. Generally, stock options granted under the Plan in 2000 vest 25% after one year and 6.25% per quarter thereafter, and expire 10 years after the grant date. Under the Director Plans, certain options granted in 1999 vest immediately. The remainder of the options granted in 1997 and later vest at the earlier of (1) the next annual meeting, (2) 13 months from date of grant, or (3) the effective date of an acquisition as defined in the Director Plans.

The following table presents the activity for options under the Plan and the ASTeX Plans:

YEAR ENDED DECEMBER 31, ---------------- 2000 1999 1998 ----------WEIGHTED WEIGHTED WEIGHTED AVERAGE AVERAGE AVERAGE EXERCISE EXERCISE EXERCISE OPTIONS PRICE OPTIONS PRICE OPTIONS PRICE ---------- Outstanding -- beginning of period..... 3,603,131 \$ 8.56 3,011,329 \$ 7.11 2,303,299 \$6.06 Granted..... 1,134,384 29.66 1,358,977 12.49 987,022 9.82 Exercised..... (672,472) 7.93 (338,441) 6.70 (104,713) 7.93 Forfeited or expired..... (140,945) 14.86 (428,734) 12.30 (174,279) 8.06 ----- ---- ----- Outstanding -end of period..... 3,924,098

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

The following table summarizes information with respect to options outstanding and exercisable under the Plan and the ASTeX Plans at December 31, 2000:

OPTIONS OUTSTANDING --------------------OPTIONS EXERCISABLE WEIGHTED ----------WEIGHTED AVERAGE WEIGHTED AVERAGE REMAINING AVERAGE NUMBER EXERCISE CONTRACTUAL NUMBER EXERCISE RANGE OF EXERCISE PRICE OF SHARES PRICE LIFE (IN YEARS) OF SHARES PRICE - -------- ------ ------------------ -------- \$ 4.43 -\$11.74 2,109,685 \$ 5.93 5.82 1,434,947 \$ 5.56 \$11.98 -\$18.83 728,145 \$14.54 7.91 290,669 \$13.95 \$19.00 -\$29.50 502,127 \$27.01 6.48 85,362 \$26.42 \$30.24 -\$61.50 584,141 \$34.95 8.13 41,390 \$37.98 ------- ------ --- ----- -- - - - -

3,924,098 \$14.54 6.64 1,852,368 \$ 8.56

The following table presents activity for options under the MKS Director $\ensuremath{\mathsf{Plans}}$:

YEAR ENDED DECEMBER 31,
2000 1999 1998
WEIGHTED WEIGHTED WEIGHTED AVERAGE AVERAGE AVERAGE EXERCISE EXERCISE EXERCISE OPTIONS PRICE OPTIONS PRICE OPTIONS PRICE
\$10.95 34,368 \$ 4.81 30,748 \$4.43 Granted 24,000 44.88 66,000 14.15 3,620 8.00 Exercised (25,092) 10.95
Outstanding - - end of period 99,276 \$19.15 100,368 \$10.95 34,368 \$4.81 ====== ====== =======================
period

The following table summarizes information with respect to options outstanding and exercisable under the MKS Director Plans at December 31, 2000:

OUTSTANDING -------------------OPTIONS EXERCISABLE WEIGHTED ----------WEIGHTED AVERAGE WEIGHTED AVERAGE REMAINING AVERAGE NUMBER EXERCISE CONTRACTUAL NUMBER EXERCISE RANGE OF EXERCISE PRICE OF SHARES PRICE LIFE (IN YEARS) OF SHARES PRICE - ------------- ----- ---------------------- \$ 4.43 - \$ 8.00 25,776 \$ 4.87 5.85 25,776 \$

OPTIONS

4.81 \$14.00 - \$14.40 49,500 \$14.15 8.20 49,500 \$14.15 \$44.875 24,000 \$44.88 9.38 \$	
99,276 \$19.15 7.87 75,276 \$10.95	

The Company has adopted the disclosure-only provisions of Statement of Financial Accounting Standards No. 123 (SFAS No. 123), "Accounting for Stock-Based Compensation." The Company has chosen to continue to account for stock-based compensation using the intrinsic value method prescribed in Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" and related interpretations. The Company is required to disclose pro forma net income and net income per common share amounts had compensation cost for the Company's stock based compensation plans been determined based on the fair value at the grant date for awards under the plans. Had compensation expense for the stock based

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

compensation plans been consistent with the method of SFAS No. 123, the amounts reported for 2000, 1999 and 1998 would have been:

2000 1999 1998 Net income
as reported \$60,260
\$22,786 \$11,207 Pro forma net income for SFAS No.
123\$53,320 \$19,920 \$ 9,304 Pro
forma net income per share for SFAS No. 123:
Basic
\$ 1.54 \$ 0.66 \$ 0.38
Diluted
\$ 1.47 \$ 0.63 \$ 0.37

The weighted average fair value of options at the date of grant was estimated using the Black-Scholes model and was \$22.74 with the following assumptions in 2000: expected life of 5 years, weighted average interest rate of 6.37%, expected volatility of 88%, and no dividend yield. In 1999, the weighted average fair value of MKS options at the date of grant was \$9.54 with the following assumptions in 1999: expected life of 5 years, weighted average interest rate of 5.49%, expected volatility of 64%, and no dividend yield. Had the fair value based method prescribed in SFAS No. 123 been used to account for stock-based compensation cost in 1998, for MKS options there would have been no change in net income and net income per share from that reported based on the following assumptions: dividend yield of 8%, interest rate of 5.44% and an expected life of 8 years.

The fair value of purchase rights granted in 2000 and 1999 under the Purchase Plan was \$7.64 and \$5.11, respectively. The fair value of the employees' purchase rights was estimated using the Black-Scholes model with the following assumptions in 2000: expected life of 6 months, interest rate of 5.57%, expected volatility of 88%, and no dividend yield, and the following assumptions in 1999: expected life of 6 months, interest rate of 4.87%, expected volatility of 64%, and no dividend yield.

The weighted average fair value of ASTeX options granted during fiscal 2000, 1999 and 1998 was \$18.53, \$4.08 and \$9.10, respectively.

The fair value of each ASTEX option grant is estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted average assumptions used for grants issued in fiscal 2000, 1999 and 1998: no divided yield for all years; expected volatility of 72%, 82% and 76% for 2000, 1999 and 1998, respectively; risk-free interest rates of 5.92% for 2000 grants, 4.72% for 1999 grants and 5.8% for 1998 grants; and expected lives of 4 years for 2000 grants, 4 years for 1999 grants and 4 years for 1998 grants.

ACCUMULATED OTHER COMPREHENSIVE INCOME

The balance of accumulated other comprehensive income was comprised of the following:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

9. INCOME TAXES

Prior to its initial public offering, MKS was treated as an S corporation for federal income tax purposes. As an S corporation, the Company was not subject to federal, and certain state, income taxes. MKS terminated its S corporation status upon the closing of its initial public offering in 1999 and became subject to taxes at C corporation tax rates. This change in tax status and tax rates resulted in a non-recurring, non-cash deferred tax credit to net income of \$3,770,000 and a deferred tax charge to other comprehensive income of \$497,000 in 1999.

The Pre-IPO stockholders are liable for individual Federal, and certain state, income taxes on their allocated portions of the MKS taxable income as an S corporation. For the tax year ending December 31, 1999, the Pre-IPO stockholders were allocated a portion of the MKS 1999 taxable income. A reconciliation of the Company's 2000 and 1999 effective tax rate to the U.S. federal statutory rate follows:

As MKS was not subject to Federal income taxes in 1998, a reconciliation of the effective tax rate to the Federal statutory rate is not meaningful for that year.

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

YEAR ENDED DECEMBER 31,
States \$87,654 \$23,689 \$12,656
Foreign
8,456 3,678 1,966 96,110
27,367 14,622 Current taxes: United States
Federal 29,778 6,514
2,141
State
5,203 1,291 485
Foreign
9,611 3,410 Deferred taxes: United States
Federal
(4,804) (267)
State
(235) (242) 265
Foreign
16 7 (2,828) (5,030) 5 - Provision for income
taxes
3,415 ====== =============================

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

At December 31, 2000 and 1999, the components of the deferred tax asset and deferred tax liability were as follows:

2000 1999 Deferred tax assets (liabilities):
Inventories
\$4,086 \$2,599 Intercompany
profits 2,572 1,362
Net operating loss carryforwards
45 1,415 Depreciable
assets 1,457 426
Compensation and accrued liabilities
1,236 1,301 Investment booked under the equity
method (753) (557)
Other
328 1,041
Total
\$8,971 \$7,587 ====== ======

10. EMPLOYEE BENEFIT PLANS

The Company has a 401(k) profit-sharing plan for U.S. employees meeting certain requirements in which eligible employees may contribute from 1% up to 12% of their compensation. The Company, at its discretion, may provide a matching contribution which will generally match up to the first 2% of each participant's compensation, plus 25% of the next 4% of compensation. At the discretion of the Board of Directors, the Company may also make additional contributions for the benefit of all eligible employees. The Company's contributions are generally paid annually, and were \$2,371,000 and \$1,506,000 for the years ended December 31, 1999 and 1998. Approximately \$3,372,000 has been expensed as the estimated Company contribution for the year ended December 31, 2000 and is included in accrued compensation.

The Company maintains a bonus plan which provides cash awards to key employees, at the discretion of the Compensation Committee of the Board of Directors, based upon operating results and employee performance. Bonus expense to key employees was \$7,579,000, \$3,900,000 and \$577,000 for the years ended December 31, 2000, 1999 and 1998, respectively.

11. SEGMENT INFORMATION AND SIGNIFICANT CUSTOMER

See Note 1 for a brief description of the Company's business. The Company is organized around four similar product lines domestically and by geographic locations internationally and has three reportable segments: North America, Far East, and Europe. Net sales to unaffiliated customers are based on the location in which the sale originated. Transfers between geographic areas are at negotiated transfer prices and have been eliminated from consolidated net sales. Income from operations consists of total net sales less operating expenses and does not include either interest income, interest expense or income taxes. The Company had one customer comprising 30%, 29% and 25% of net sales for the years ended December 31, 2000, 1999 and 1998, respectively. This data is presented in accordance with SFAS 131, "Disclosures About Segments of an Enterprise and Related Information."

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

YEAR ENDED DECEMBER 31, 2000 ---------- NORTH FAR AMERICA EAST EUROPE TOTAL ------ ---- Net sales to unaffiliated customers..... \$358,777 \$67,015 \$41,060 \$466,852 Intersegment net sales..... 68,753 1,411 1,307 71,471 Depreciation and amortization..... 14,072 227 576 14,875 Income from operations..... 80,144 4,753 6,638 91,535 Segment assets..... 390,688 39,436 24,279 454,403 Long-lived assets..... 106,738 5,703 4,494 116,935 Capital expenditures..... 31,019 154 995 32,168 YEAR ENDED DECEMBER 31, 1999 ---------- NORTH FAR AMERICA EAST EUROPE TOTAL ------ ----- Net sales to unaffiliated customers..... \$200,223 \$38,734 \$26,335 \$265,292 Intersegment net sales..... 40,117 706 986 41,809 Depreciation and amortization..... 8,691 252 547 9,490 Income from operations..... 20,870 1,413 2,754 25,037 Segment assets..... 208,137 31,272 14,363 253,772 Long-lived assets..... 41,800 6,524 2,874 51,198 Capital expenditures..... 6,746 241 357 7,344 YEAR ENDED DECEMBER 31, 1998 ---------- NORTH FAR AMERICA EAST EUROPE TOTAL ------ ----- Net sales to unaffiliated customers..... \$175,556 \$23,902 \$23,741 \$223,199 Intersegment net sales..... 30,406 290 1,015 31,711 Depreciation and amortization..... 8,259 210 515 8,984 Income from operations..... 12,072 1,298 1,674 15,044 Segment assets..... 113,540 20,768 12,664 146,972 Long-lived assets..... 42,811 5,655 3,363 51,829 Capital expenditures..... 5,513 179 444 6,136

Included in North America are the United States and Canada. Net sales to Canada and long-lived assets in Canada were not material.

Included in the Far East are Japan, Korea, Singapore and Taiwan. Included in Europe are Germany, France and the United Kingdom. Net sales to unaffiliated customers from Japan were \$50,187,000, \$30,696,000 and \$21,153,000 for the years ended December 31, 2000, 1999 and 1998, respectively. Long-lived assets within Japan amounted to \$5,460,000, \$6,266,000 and \$5,431,000 at December 31, 2000, 1999 and 1998, respectively. The Company completed several acquisitions in fiscal 2000, all of which have been accounted for under the purchase method of accounting. Accordingly, the results of operations for each acquired company have been included in the Company's supplemental consolidated results of operations from the date of purchase. On March 10, 2000 the Company acquired Compact Instrument Technology, LLC ("Compact Instrument"), a start-up company with proprietary technology in process monitoring for semiconductor manufacturing and other manufacturing processes. The acquisition has been accounted for by the purchase method of accounting.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

The purchase price was \$8,700,000 and consisted of \$8,400,000 in common stock and \$300,000 in assumed net liabilities. The purchase price was allocated to the assets acquired based upon their estimated fair values. This allocation resulted in goodwill of \$7,600,000 and acquired technology of \$1,600,000, which are being amortized on a straight-line basis over five years and three years, respectively.

On May 5, 2000, the Company acquired Telvac Engineering, Ltd., a UK-based, privately held manufacturer of vacuum subsystems. The acquisition has been accounted for by the purchase method of accounting. The purchase price was \$1,600,000, and consisted of \$750,000 in cash, \$750,000 in debt and \$100,000 in other acquisition expenses. The purchase price was allocated to the assets acquired based on their estimated fair values. This allocation resulted in goodwill of \$800,000, which is being amortized on a straight-line basis over 5 years.

On July 21, 2000, the Company acquired Spectra International, LLC, a privately held company with products and technology in process monitoring. The purchase price consisted of \$9,700,000 cash; 183,293 shares of common stock valued at \$6,500,000; fully vested options to purchase 83,675 shares of common stock valued at \$2,400,000, calculated at an exchange ratio of 0.4768 shares of common stock per share of Spectra common stock; and \$400,000 in acquisition costs. The transaction also includes contingent earnout payments of up to an aggregate of \$12,000,000 over 5 years, which will be treated as compensation expense as it is earned. The purchase price was allocated to the assets acquired based on their estimated fair values. Goodwill, acquired technology and other intangible assets are being amortized on a straight-line basis over 5 to 7 years. The allocation of the purchase price is as follows:

Current assets Acquired intangibles Acquired technology Goodwill Other assets Liabilities and debt assumed	7,900 3,700 6,100 400
	\$19,000
	======

The intangible assets include approximately \$0.3 million for acquired in-process technology for projects that did not have future alternative uses. This allocation represents the estimated fair value based on risk-adjusted cash flows related to the in-process technology projects. At the date of the acquisition, the development of these projects had not yet reached technological feasibility, and the technology in progress had no alternative future uses. Accordingly, these costs were expensed in the three months ended September 30, 2000.

On September 6, 2000 the Company acquired D.I.P., Inc., a privately held company with products and technology in digital process control. The purchase price was \$6,900,000 cash; 231,392 shares of common stock valued at \$6,800,000; and \$300,000 in acquisition costs. The purchase price was allocated to the assets

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

acquired based on their estimated fair values. Goodwill, acquired technology and other intangibles are being amortized on a straight-line basis over 3 to 5 years. The allocation of the purchase is as follows:

Current assets Acquired intangibles Acquired technology Goodwill Other assets Liabilities assumed	1,700 7,200 4,300 200
	\$14,000 ======

On August 4, 1999, the Company acquired substantially all of the assets of the Shamrock product line from Sputtered Films, Inc., a designer, manufacturer and seller of high performance sputtering equipment for the semiconductor and magnetic storage industries. Cash consideration of approximately \$6,382,000 was paid for the assets. The costs of the acquisition were allocated on the basis of the estimated fair market value of the assets acquired and resulted in an allocation of \$4,463,000 to goodwill. The allocation of the purchase price is as follows:

Current assets Goodwill Property and equipment and other assets Liabilities assumed	4,463 1,377
	\$6,382 =====

In fiscal 1999, the Company completed two acquisitions. On April 5, 1999, the Company completed the acquisition of Klee Corporation ("Klee"), a manufacturer of physical vapor deposition process systems targeted to a segment of electronics packaging known as under-bump metallurgy or flip-chip packaging. Klee had limited operations through the date of the acquisition. The Company acquired all of the stock of Klee in exchange for 238,202 shares of the Company's common stock. The acquisition was accounted for on a pooling of interests basis. The Company's consolidated financial statements have not been restated for periods prior to acquisition as the acquisition was considered to be an immaterial pooling.

On November 4, 1998, the Company completed the acquisition of PlasmaQuest, Inc. ("PlasmaQuest"), a manufacturer of systems for research and development, magnetic disk head processing, and electronic packaging applications. The Company acquired all of the stock of PlasmaQuest for a preliminary purchase price of \$23,000 net of cash acquired of \$124,000. The purchase price was paid in cash from the Company's cash balances. The terms of certain of the acquisition agreements provide for amounts advanced to PlasmaQuest prior to the acquisition, to be repaid. During 2000, the amounts were not repaid in full and the purchase price was adjusted, resulting in an additional allocation of \$330,000 to goodwill. The allocation of the purchase price is as follows:

Current assets Goodwill Property and equipment and other assets Liabilities assumed	1	393 141
	\$	147
	===	====

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

In fiscal 1998, the Company completed the acquisition of Sorbios GmbH, a manufacturer of ozone generators and air ionizers for semiconductor production. The Company acquired all of the stock of Sorbios GmbH for a total purchase price of \$3,683,000. The purchase price was paid in cash, from the Company's cash balances. Costs associated with the acquired in-process research and development expenses were charged to expense. The allocation of the purchase price is as follows:

Current assets Acquired intangibles Property and equipment and other assets Liabilities assumed	2,389 2,551
	\$ 3,683
	======

The following unaudited pro forma results of operations of the Company give effect to the acquisitions made in 2000 as if the acquisitions had occurred at the beginning of 1999. Such pro forma information reflects certain adjustments including amortization of goodwill, interest expense, interest income, income tax effect and an increase in the number of weighted average shares outstanding. This pro forma information does not necessarily reflect the results of operations that would have occurred had the acquisitions taken place as described and is not necessarily indicative of results that may be obtained in the future.

YEAR ENDED DECEMBER 31, 2000 1999 Net
1999 Net
sales
\$479,371 \$283,717 Net
income
\$ 58,005 \$ 17,997 Net income per share:
Basic
\$ 1.64 \$ 0.58
Diluted
\$ 1.59 \$ 0.57

In July 2000, the Company invested \$1.5 million in Opnetics Corporation, for a 12.6% investment in the common stock of that company. One of the Company's vice presidents is also an investor with a 1.68% holding of the outstanding common stock.

13. RESTRUCTURING CHARGES AND OTHER RELATED EXPENSES

During 1999, the Company consolidated its Modesto, California operations into its Woburn, Massachusetts and Colorado Springs, Colorado sites. The Company also consolidated its Beverly, Massachusetts operation into Woburn. These consolidations resulted in a restructuring charge of \$1,497,000. The restructuring charge consisted of severance relating to the termination of 70 employees, abandonment of leasehold improvements and fixed assets, and facility costs (primarily future lease payments relating to abandoned facilities).

In connection with the aforementioned consolidations, the Company wrote down inventory having a cost of \$1,090,000 during 1999. The write-down was due to excess inventory resulting from the unexpected severity of the downturn in the semiconductor equipment industry, excess and obsolete customer-specific inventory, and the abandonment of certain marginal product lines. The Company also incurred \$393,000 of other transition costs related to the consolidations for moving assets and training personnel. The write-down of inventory and other transition costs are reflected in the consolidated statement of operations as cost of sales and revenues, and general and administrative expenses, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED) (TABLES IN THOUSANDS, EXCEPT PER SHARE DATA)

Also during 1999, the Company announced the consolidation of its recently acquired PlasmaQuest operations based in Dallas, Texas into its newly leased space in Wilmington, Massachusetts. This consolidation has resulted in a restructuring charge of approximately \$763,000, primarily consisting of severance relating to the termination of 16 employees, abandonment of leasehold improvements and fixed assets, and facility costs (primarily future lease payments relating to the abandoned facility).

Total 1999 costs related to restructurings, inventory writedowns and transition costs were \$3,743,000.

The following table summarizes the recorded accruals and uses of the 1999 restructuring and impairment actions:

ASSET SEVERANCE EXIT IMPAIRMENTS BENEFITS
COSTS TOTAL
charge\$ 606 \$ 579 \$ 312 \$1,497 Cash
payments
items
(598) (598) Adjustments of
accrual (33) 2 (31) Accrual
balance as of December 31, 1999
- 174 174 Cash payments
(172) (172) Adjustment of
accrual
(2) (2) Accrual
balance as of December 31, 2000 \$
\$ \$ \$ ===== ===== =====
Fourth Quarter Restructuring Total
charges
\$ 183 \$ 196 \$ 384 \$ 763 Noncash
items
(183) (183)
Accrual balance as of December 31, 1999 196 384 580
Cash
payments
(196) (340) (536) Adjustment of
accrual
(44) (44) Accrual
balance as of December 31, 2000 \$
\$ \$ \$ ===== ===== ======

14. INTANGIBLE ASSETS

Intangible assets include the following at December 31:

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS REFLECTING THE MERGER OF MKS INSTRUMENTS, INC. AND APPLIED SCIENCE AND TECHNOLOGY, INC.

When used in this Financial Information on MKS Instruments, Inc. (the "Supplemental Financial Information"), including this Management's Discussion and Analysis, the words "believes," "anticipates," "plans," "expects," and similar expressions are intended to identify forward-looking statements. These forward-looking statements reflect management's current opinions and are subject to certain risks and uncertainties that could cause actual results to differ materially from those stated or implied. MKS assumes no obligation to update this information. See "Factors That May Affect Future Results" which are incorporated by reference from the MKS and the Applied Science and Technology, Inc. reports filed with the Securities and Exchange Commission for factors that could cause actual results to differ materially from any forward-looking statements made by MKS. As used in this Financial Information, the term "MKS" refers to MKS Instruments, Inc.; the term "ASTEX" refers to Applied Science and Technology, Inc.; and the terms "we," "us," "our," and the "Company" refer to MKS subsequent to its merger with ASTEX in January 2001.

OVERVIEW

The following discussion and analysis relates to the Consolidated Financial Statements of MKS Instruments, Inc. and its subsidiaries as of December 31, 2000 and 1999 and for the years ended December 31, 2000, 1999 and 1998 ("Consolidated Financial Statements"). MKS was founded in 1961. MKS develops, manufactures and supplies instruments and components used to measure, control and analyze gases in semiconductor manufacturing and similar industrial manufacturing processes. On January 26, 2001, MKS completed its acquisition of Applied Science and Technology, Inc. ("ASTeX") in a transaction accounted for under the pooling of interests method of accounting and, accordingly, the Consolidated Financial Statements reflect the combined financial position and results of operations and cash flows of MKS and ASTeX (together, the "Company"), for all periods presented. Upon publication of the Company's consolidated financial statements for a period which includes January 26, 2001, the date of the merger, the Consolidated Financial Statements become the historical consolidated financial statements of the Company. See Notes 1 and 2 to the Consolidated Financial Statements. ASTeX develops and manufactures components and sub-systems using reactive gas and power source technologies for semiconductor, medical, and industrial applications and complete process systems for electronic applications. This presentation combines the historical financial statements of MKS for the years ended December 31, 2000, 1999 and 1998 with the historical financial statements of ASTeX for the fiscal years ended July 1, 2000, June 26, 1999 and June 27, 1998, respectively.

The Company's customers include semiconductor capital equipment manufacturers, semiconductor device manufacturers, industrial manufacturing companies and university, government and industrial research laboratories. During 2000, the Company estimates that approximately 76% of its net sales were to semiconductor capital equipment manufacturers and semiconductor device manufacturers. The Company expects that sales to such customers will continue to account for a substantial majority of its sales.

In 2000, 1999 and 1998, sales to the Company's top five customers accounted for approximately 45%, 39% and 34%, respectively, of its net sales. During 2000, Applied Materials, Inc. accounted for approximately 30% of the Company's net sales.

A significant portion of the Company's sales are to operations in international markets. International sales by the Company's foreign operations, located in Japan, Korea, Europe, Singapore and Taiwan, were 23%, 25% and 21% of net sales for 2000, 1999 and 1998, respectively. Sales by the Company's Japan subsidiary comprised 11%, 12% and 9% of net sales in 2000, 1999 and 1998, respectively. The Company currently uses, and plans to continue to use, forward exchange contracts and local currency purchased options to reduce currency exposure arising from foreign currency denominated intercompany sales of inventory. Gains and losses on derivative financial instruments that qualify for hedge accounting are classified in cost of sales. Gains and losses on derivative financial instruments that do not qualify for hedge accounting are marked-to-market and recognized immediately in other income. See Note 3 of Notes to Consolidated Financial Statements.

MKS was treated as an S corporation for federal income tax purposes prior to its initial public offering in 1999. MKS's S corporation status terminated upon the closing of the offering, at which time MKS became subject to federal, and certain state, income taxation as a C corporation. The Company's pro forma net income reflects a pro forma effective tax rate of 38.0% in 1998 and 37.3% in 1999 to reflect federal and state income taxes which would have been payable had MKS been taxed as a C corporation for each period.

The Company completed several acquisitions in fiscal 2000, all of which have been accounted for under the purchase method of accounting. Accordingly, the results of operations for each acquired company have been included in the Company's consolidated results of operations from the date of purchase. On March 10, 2000, the Company acquired Compact Instrument Technology, LLC, or Compact Instrument, a start-up company with proprietary technology in process monitoring for semiconductor manufacturing and other manufacturing processes. The purchase price was \$8,700,000 and consisted of \$8,400,000 in common stock and \$300,000 in assumed net liabilities. On May 5, 2000, the Company acquired Telvac Engineering, Ltd., or Telvac, a UK-based, privately held manufacturer of vacuum subsystems. The purchase price was \$1,600,000, and consisted of \$750,000 in cash, \$750,000 in debt and \$100,000 in other acquisition expenses. On July 21, 2000, the Company acquired Spectra International, LLC, or Spectra, a privately held company with products and technology in process monitoring. The purchase price consisted of \$9,700,000 cash; 183,293 shares of common stock valued at \$6,500,000; fully vested options to purchase 83,675 shares of common stock valued at \$2,400,000; and \$400,000 in acquisition costs. On September 6, 2000, the Company acquired D.I.P., Inc., or D.I.P., a privately held company with products and technology in digital process control. The purchase price was \$6,900,000 cash; 231,392 shares of common stock valued at \$6,800,000; and \$300,000 in acquisition costs. On August 4, 1999, the Company acquired substantially all of the assets of the Shamrock product line from Sputtered Films, Inc., a designer, manufacturer and seller of high performance sputtering equipment for the semiconductor and magnetic storage industries. Cash consideration of approximately \$6,382,000 was paid for the assets. See Note 12 of "Notes to Consolidated Financial Statements."

On March 30, 2000, ASTEX completed the registration and sale of 1,917,250 shares of common stock at \$40.42 per share. The net proceeds from the offering were approximately \$73,200,000.

On April 5, 1999 MKS closed the initial public offering of its Common Stock. In connection with this offering and the exercise of an over-allotment option by the underwriters, MKS sold 6,375,000 shares of Common Stock at a price of \$14.00 per share. The net proceeds to MKS were approximately \$82,000,000. Offering costs were approximately \$1,000,000. Also on April 5, 1999, MKS distributed \$40,000,000, which was the estimated amount of the Company's undistributed S Corporation earnings as of the day prior to the closing of the offering.

On March 5, 1999, ASTEX completed the registration and sale of 1,533,800 shares of common stock at \$14.34 per share. On April 6, 1999, the underwriters exercised their over-allotment option to purchase an additional 230,070 shares of common stock. The net proceeds from the offering were approximately \$23,800,000.

In 1998, ASTeX announced that it had met the requirements for the redemption of redeemable warrants issued in connection with the ASTeX initial public offering and called the warrants for redemption. 2,082,451 redeemable warrants and 133,088 underwriter warrants were converted into 1,297,147 shares of common stock. The net proceeds were \$15,234,000.

RESULTS OF OPERATIONS

The following table sets forth for the periods indicated the percentage of total net sales of certain line items included in the Company's consolidated statement of income data:

YEAR ENDED DECEMBER 31, 2000 1999 1998 Net
sales
sales
profit
38.6 37.8 Research and
development
administrative 15.2 19.4 20.2 Amortization of goodwill and acquired intangible assets 1.1 0.3 0.3
Restructuring
0.8 Purchase of in-process research and
development 0.1 0.1 Tncome from
operations 19.6 9.4
6.7 Interest income (expense),
net 1.0 0.5 (0.3) Other
income, net
0.4 0.2 Income before income
taxes 20.6 10.3 6.6
Provision for income
taxes 7.7 1.7 1.6 Net
income
Historical income before income taxes 10.3% 6.6% Pro forma provision for income taxes 3.8 2.5 Pro forma net income 6.5% 4.1%
===== =====

Year Ended 2000 Compared to 1999

Net Sales

Net sales increased 76.0% to \$466.9 million for the year ended December 31, 2000 from \$265.3 million in the same period of 1999. International net sales were approximately \$108.1 million for the year ended December 31, 2000 or 23.1% of net sales and \$65.1 million for the year ended December 31, 1999 or 24.5% of net sales. The increase in net sales was due to increased worldwide sales volume of the Company's existing products which resulted primarily from increased sales to the Company's semiconductor capital equipment manufacturer and semiconductor device manufacturer customers, and an increase of approximately \$11.3 million from the companies acquired in 2000.

Gross Profit

Gross Profit as a percentage of net sales increased to 44.0% for the year ended December 31, 2000 from 38.6% for the same period of 1999. The increase was primarily due to fuller utilization of existing manufacturing capacity as a result of increased sales, other manufacturing efficiencies, and a lower fixed cost structure from the ASTEX restructurings in 1999. Gross margins in fiscal 1999 were adversely impacted by a \$1.1 million inventory writedown.

Research and Development

Research and development expense increased 62.5% to \$37.3 million or 8.0% of net sales for the year ended December 31, 2000 from \$23.0 million or 8.7% of net sales for the same period of 1999. The increase was due to increased compensation of \$4.2 million, increased spending for development materials related to

projects in process of \$3.7 million, development of new products at ASTeX and increased spending on other costs related to development work.

Selling, General and Administrative

Selling, general and administrative expenses increased 38.3% to \$71.2 million or 15.2% of net sales for the year ended December 31, 2000 from \$51.5 million or 19.4% of net sales for the same period of 1999. The increase was due primarily to increased compensation expense of \$9.1 million, earnout payments of \$1.2 million related to the acquisition of Spectra International, LLC, increased professional fees and other selling, general and administrative expenses.

Amortization of Goodwill and Acquired Intangible Assets

Amortization of goodwill and acquired intangible assets increased \$4.2 million to \$5.0 million for the year ended December 31, 2000 from \$0.8 million for the same period of 1999. The increase is due to the amortization of goodwill and other intangibles resulting from the acquisitions completed by the Company during 2000.

Purchase of In-Process Technology

In July 2000, the Company acquired Spectra International, LLC in a transaction accounted for as a purchase. The purchase price was allocated to the assets acquired, including intangible assets, based on their estimated fair values. The intangible assets include approximately \$0.3 million for acquired in-process technology for projects that did not have future alternative uses. This allocation represents the estimated fair value based on risk-adjusted cash flows related to the in-process technology projects. At the date of the acquisition, the development of these projects had not yet reached technological feasibility, and the technology in progress had no alternative future uses. Accordingly, these costs were expensed in the three months ended September 30, 2000.

Interest Income (Expense), Net

During the years ended December 31, 2000 and 1999, the Company generated net interest income of \$4.8 million and \$1.4 million, respectively, primarily from the invested net proceeds of its common stock offerings, offset by interest expense on outstanding debt.

Provision for Income Taxes

Prior to the closing of its initial public offering in April 1999, MKS was treated as an S corporation for tax purposes. As an S corporation, MKS was not subject to federal and certain state income taxes. Upon the closing of its initial public offering on April 5, 1999, MKS's status as an S Corporation was terminated and it became subject to taxes as a C corporation. The Company's pro forma provision for income taxes in 1999 reflects the estimated tax expense the Company would have incurred had it been subject to federal and state income taxes as a C corporation. The pro forma provision differs from the federal statutory rate due primarily to the effects of state and foreign taxes and certain tax credits. The 2000 provision for income taxes of 37.3% is approximately the same as the pro forma provision in 1999.

Year Ended 1999 Compared to 1998

Net Sales

Net sales increased 18.9% to \$265.3 million for 1999 from \$223.2 million for 1998. International net sales were approximately \$65.1 million in 1999 or 24.5% of net sales and \$47.6 million in 1998 or 21.3% of net sales. The increase in net sales was primarily due to increased sales volume of the Company's existing products in the United States and in Asia which resulted primarily from increased sales to the Company's semiconductor capital equipment manufacturing and semiconductor device manufacturer customers.

Gross Profit

Gross profit as a percentage of net sales increased to 38.6% for 1999 from 37.8% in 1998. The increase was primarily due to fuller utilization of existing manufacturing capacity as a result of increased net sales during that period, offset by an inventory write-down of \$1.1 million resulting from the downturn in the semiconductor industry.

Research and Development

Research and development expenses decreased 1.8% to \$23.0 million or 8.7% of net sales in 1999 from \$23.4 million in 1998 or 10.5% of net sales. The decrease resulted from lower spending by ASTeX in the first half of 1999 in response to a decline in revenues during that period.

Selling, General and Administrative

Selling, general and administrative expenses increased \$6.4 million to \$51.5 million or 19.4% of net sales in 1999, from \$45.1 million or 20.2% of net sales for 1998. The increase was due primarily to increased incentive compensation of \$3.3 million, the establishment of the Global Customer Operations organization and increased staffing to strengthen the global marketing, sales, service and product management infrastructure at ASTeX and higher information system costs from implementation of an Enterprise Resource Planning (ERP) System at ASTeX.

Amortization of Goodwill and Acquired Intangible Assets

Amortization of goodwill and acquired intangible assets increased \$0.1 million to \$0.8 million from \$0.7 million in 1998 as a result of the amortization from the PlasmaQuest acquisition made in 1999.

Restructuring Charge

As a result of consolidation of two ASTeX facilities in the first six months of 1999 and the consolidation of its PlasmaQuest facility in Dallas, Texas to the Woburn, Massachusetts facility ASTeX recorded a \$2.3 million restructuring charge in 1999. The restructuring charge for the consolidation of Modesto, California and Beverly, Massachusetts consisted of severance related to the termination of 70 full-time employees, abandonment of leasehold improvements and fixed assets, and facility costs, primarily future lease payments relating to abandoned facilities. The restructuring costs of \$763,000 for the Dallas facility are for the severance of 16 full-time employees, abandonment of leasehold and fixed assets, and future lease payments relating to abandoned facilities.

Interest Income (Expense), Net

During 1999, the Company generated net interest income of \$1.4 million primarily from the invested net proceeds of the MKS initial public offering and the ASTEX secondary offering, offset by interest expense on outstanding debt. Net interest expense of \$0.9 million for 1998 represents interest on outstanding loans, offset by interest income earned on cash and cash equivalents and short-term investments.

Other Income (Expense), Net

Other income of \$0.9 million for 1999 includes a distribution of \$0.7 million from one of MKS's mutual insurance carriers upon the initial public offering of the insurance carrier, and also includes gains recorded from foreign exchange contracts which did not qualify for hedge accounting. Other income of \$0.4 million in 1998 primarily represents foreign exchange translation gains on intercompany payables of \$1.0 million offset by \$0.7 million for costs associated with MKS's planned initial public offering in early 1998, and the sale of an investment in another company by ASTEX which resulted in a gain of \$0.2 million.

Effective April 1, 1999 the Company adopted Statement of Financial Accounting Standards (SFAS) No. 133, "Accounting for Derivative Instruments and Hedging Activities." SFAS No. 133 requires that all derivative instruments be recorded on the balance sheet at their fair value. Changes in the fair value of derivatives are recorded each period in current earnings or other comprehensive income, depending on whether a derivative is designated as part of a hedge transaction and, if it is, the type of hedge transaction. The adoption of SFAS No. 133 did not have a material impact on the Company's financial position or results of operations. The derivative instruments currently held by the Company which have been designated as hedges, including forward exchange contracts, local currency purchased options, and an interest rate swap, qualify for hedge accounting under SFAS No. 133, and changes in their fair value will be recorded as a component of other comprehensive income until the hedged transaction occurs.

Pro Forma Provision for Income Taxes

Prior to the closing of its initial public offering in April 1999 MKS was treated as an S corporation for tax purposes. As an S corporation, MKS was not subject to federal and certain state, income taxes. Upon the closing of its initial public offering on April 5, 1999, MKS's status as an S corporation was terminated and it became subject to taxes as a C corporation. The Company's pro forma provision for income taxes reflects the estimated tax expense the Company would have incurred had it been subject to federal and state income taxes as a C corporation. The pro forma provision differs from the federal statutory rate due primarily to the effects of state and foreign taxes and certain tax credits. The pro forma provision for 1999 reflects a pro forma tax rate of 37.3%. This rate differs from the pro forma tax rate of 38% for 1998 due to increased tax credits and lower nondeductible expenses in 1999.

LIQUIDITY AND CAPITAL RESOURCES

The Company has financed its operations and capital requirements through a combination of cash provided by operations, long-term real estate financing, capital lease financing and short-term lines of credit. On April 5, 1999, MKS completed the initial public offering of its Common Stock. In connection with this offering and the exercise of an over-allotment option by the underwriters, MKS sold 6,375,000 shares of Common Stock at a price of \$14.00 per share. The net proceeds to MKS were approximately \$82,000,000 and were received in the second quarter of 1999. Underwriting discounts and commissions were approximately \$6,200,000, and other offering costs were approximately \$1,000,000. On April 5, 1999, MKS distributed \$40,000,000, which was the estimated amount of its undistributed S Corporation earnings as of the day prior to the closing of the offering.

On March 30, 2000, ASTEX completed the registration and sale of 1,917,250 shares of common stock at \$40.42 per share. The net proceeds from the offering were approximately \$73.2 million.

On March 5, 1999, ASTEX completed the registration and sale of 1,533,800 shares of common stock at \$14.34 per share. On April 6, 1999, the underwriters exercised their over-allotment option to purchase an additional 230,070 shares of common stock. The net proceeds from the offering were approximately \$23.8 million.

In 1998, ASTeX announced that it had met the requirements for the redemption of redeemable warrants issued in connection with the ASTeX initial public offering and called the warrants for redemption. 2,082,451 redeemable warrants and 133,088 underwriter warrants were converted into 1,297,147 shares of common stock. The net proceeds were \$15,234,000.

Operations provided cash of \$40.0 million for 2000 primarily from generating net income. This cash flow was impacted by depreciation and changes in the levels of inventory, accounts payable and accrued expenses, and accounts receivable. Investing activities utilized cash of \$64.8 million for 2000 primarily from purchasing property, plant, and equipment and the business acquisitions made by the Company in 2000. Financing activities provided cash of \$81.1 million, with net proceeds from the ASTEX offering of \$73.2 million.

Working capital was \$237.3 million as of December 31, 2000, an increase of \$99.3 million from December 31, 1999. The Company has a combined \$40.0 million line of credit with two banks, expiring April 30, 2001. The Company is currently in negotiations to extend this line of credit. Additionally, the Company has an \$8 million line of credit with another bank expiring in April 2003, all of which is available. At December 31, 2000, the Company had no borrowings under these credit facilities.

Prior to its initial public offering, the Company entered into a Tax Indemnification and S Corporation Distribution Agreement with its then existing stockholders (the "Pre-IPO stockholders"). The agreement includes provisions for the payment, with interest, by the Pre-IPO stockholders or the Company, as the case may be, for the difference between the \$40,000,000 distributed as an estimate of the amount of the accumulated adjustments account as of April 4, 1999, which is the date the Company's S Corporation status was terminated and the actual amount of the accumulated adjustments account on that day. The actual amount of the accumulated adjustments account was \$41,416,619. Accordingly, the Company made an additional distribution of \$1,416,619, plus interest of \$177,524 to the Pre-IPO stockholders during the three months ended September 30, 2000. The amount of the additional distribution payable had been estimated to be \$3,350,000. This estimated amount was charged directly to retained earnings during 1999 and had no impact on net income or earnings per share. The difference between the actual additional distribution and the estimated additional distribution was credited directly to retained earnings during the three months ended September 30, 2000 and had no impact on net income or earnings per share. The amount of the accumulated adjustments account can be affected by future income tax audits of the Company. If any audit increases or decreases the accumulated adjustments account, the Company or the Pre-IPO stockholders, as the case may be, will also be required to make a payment, with interest, of such difference to the other party. No shareholders, other than the Pre-IPO stockholders, are parties to the Tax Indemnification and S Corporation Distribution Agreement.

The Company believes that its working capital, together with the cash anticipated to be generated from operations and funds available from existing credit facilities, will be sufficient to satisfy its estimated working capital and planned capital expenditure requirements through at least the next 24 months.

RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

In December 1999, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 101 ("SAB 101"), "Revenue Recognition." SAB 101 summarizes the staff's view in applying generally accepted accounting principles to revenue recognition. The Company adopted SAB 101 in fiscal year 2000. The adoption did not have a material affect on its financial statements.

MARKET RISK AND SENSITIVITY ANALYSIS

Foreign Exchange Rate Risk

The Company enters into forward exchange contracts and local currency purchased options to reduce currency exposure arising from intercompany sales of inventory. The potential fair value loss for a hypothetical 10% adverse change in forward currency exchange rates on the Company's forward exchange contracts at December 31, 2000 and 1999 would be \$146,000 and \$502,000, respectively. The potential loss in each year was estimated by calculating the fair value of the forward exchange contracts at December 31, 2000 and comparing that with those calculated using the hypothetical forward currency exchange rates.

The value of the local currency purchased options at December 31, 2000 and 1999 was immaterial.

At December 31, 2000, the Company had \$15,719,000 related to short-term borrowings denominated in Japanese yen. The carrying value of these short-term borrowings approximates fair value due to their short period to maturity. Assuming a hypothetical 10% adverse change in the Japanese yen to U.S. dollar year-end exchange rate, the fair value of these short-term borrowings would increase by \$1,746,000. The potential increase in fair value was estimated by calculating the fair value of the short-term borrowings at December 31, 2000 and comparing that with the fair value using the hypothetical year end exchange rate.

At December 31, 1999, the Company had \$12,423,000 related to short-term borrowings denominated in Japanese yen. The carrying value of these short-term borrowings approximated fair market value due to their short period to maturity. Assuming a hypothetical 10% adverse change in the Japanese yen to U.S. dollar year-end exchange rate in 1999, the fair value of these short-term borrowings would have increased by \$1,381,000. The potential increase in fair value was estimated by calculating the fair value of the short-term borrowings at December 31, 1999 and comparing that with the fair value using the hypothetical year end exchange rate.

Interest Rate Risk

The Company is exposed to fluctuations in interest rates in connection with its variable rate term and mortgage loans. In order to minimize the effect of changes in interest rates on earnings, the Company entered into an interest rate swap that fixed the interest rate on its variable rate term loans. Under the swap agreement, the Company pays a fixed rate of 5.85% on the notional amount and receives LIBOR. At December 31, 2000 and 1999, the notional amount of the interest rate swap was equal to the principal amount of the variable rate term loans. The potential increase in the fair value of those term loans resulting from a hypothetical 10% decrease in interest rates, after adjusting for the interest rate swap, was not material. The potential effects of near-term changes in interest rates on the variable rate mortgage loan is not material.

Due to its short-term duration, the fair value of the Company's cash and investment portfolio at December 31, 2000 and 1999 approximated its carrying value. Interest rate risk was estimated as the potential decrease in fair value resulting from a hypothetical 10% increase in interest rates for securities contained in the investment portfolio. The resulting hypothetical fair value was not materially different from the year-end carrying values.

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CONSOLIDATED FINANCIAL STATEMENT SCHEDULE:

The following consolidated financial statement schedule of MKS Instruments, Inc. for the years ended December 31, 2000, 1999 and 1998 is filed as part of this Form 8-K and should be read in conjunction with our Consolidated Financial Statements included in Item 7(c) of this Report on Form 8-K.

SCHEDULE II -- VALUATION AND QUALIFYING ACCOUNTS

- ---COLUMN A COLUMN B COLUMN C COLUMN D COLUMN E --- - -BALANCE AT CHARGED TO CHARGED TO BEGINNING COSTS AND OTHER BALANCE AT DESCRIPTION OF YEAR EXPENSES ACCOUNTS DEDUCTIONS END OF YEAR - --Year ended December 31, 1998: Allowance for doubtful accounts... \$ 936,342 \$339,287 \$80,841 \$323,031 \$1,033,439 Year Ended December 31, 1999: Allowance for

doubtful accounts... \$1,033,439 \$659,979 \$98,625 \$122,972 \$1,669,071 Year Ended December 31, 2000: Allowance for doubtful accounts... \$1,669,071 \$978,893 \$ - -\$694,178 \$1,953,786

All other financial statement schedules have been omitted because they are inapplicable, not required, or the information is included elsewhere in the Consolidated Financial Statements or Notes thereto.

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