

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-3
REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933

AMTECH SYSTEMS, INC.
(Exact name of registrant as specified in its charter)

Arizona
(State or other jurisdiction of
incorporation or organization)

86-0411215
(I.R.S. Employer
I.D. Number)

131 South Clark Drive, Tempe, Arizona 85281
(602) 967-5146
(Address, including zip code, and telephone number, including area code,
of registrant's principal executive offices)

Jong S. Whang
Amtech Systems, Inc.
131 South Clark Drive
Tempe, Arizona 85281
(602) 967-5146

(Name, address, including zip code, and telephone number,
including area code, of agent for service)

The Commission is requested to send copies of all communications to:

Christopher D. Johnson
Squire, Sanders & Dempsey
40 North Central Avenue, Suite 2600
Phoenix, Arizona 85004
(602) 528-4000

Approximate date of commencement of proposed sale to the public: As soon as practicable from time to time after the date of this Registration Statement.

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

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

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

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

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. | |

CALCULATION OF REGISTRATION FEE

<TABLE>
<CAPTION>

Title of Each Class of Amount of Securities to be Registered Registration Fee	Amount to be Registered(1)	Proposed Maximum Aggregate Price Per Share(2)	Proposed Maximum Aggregate Offering Price
<S> <C> Common Stock	<C> 2,835,000	<C> \$2.75	<C> \$7,796,250

</TABLE>

(1) This Registration Statement covers up to 2,415,000 shares of Common Stock to be issued upon exercise of issued and outstanding Redeemable Common Stock Purchase Warrants (the "Redeemable Warrants") issued in the Company's December 15, 1994 public offering of Units (the "Unit Offering"), each Unit consisting of six shares of Common Stock and three Redeemable Warrants (the "Units"); each Redeemable Warrant exercisable for two shares of Common Stock. This Registration Statement also covers up to 210,000 shares of Common Stock issuable as components of up to 35,000 Units that are issuable upon exercise of a warrant granted to the underwriter of the Unit Offering (the "Representative's Warrant"), as well as 210,000 shares of Common Stock underlying the Redeemable Warrants issuable as components of Units issued upon exercise of the Representative's Warrant. This Registration Statement covers, in addition to the shares of Common Stock being registered hereby, a presently indeterminate number of additional shares of Common Stock that may become issuable in certain events upon exercise of the Redeemable Warrants pursuant to adjustments in the number of shares of Common Stock for which a Redeemable Warrant is exercisable. The foregoing amounts of shares of Common Stock have been adjusted to reflect a 2-for-1 forward stock split of the Company's outstanding Common Stock effected March 29, 1996.

(2) Based upon the exercise price of the Redeemable Warrants.

Pursuant to Rule 429 under the Securities Act of 1933, as amended, this Registration Statement relates to the Registration Statement on Form S-1 (File No. 33-77368), as amended.

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

INFORMATION CONTAINED HEREIN IS SUBJECT TO COMPLETION OR AMENDMENT. A REGISTRATION STATEMENT RELATING TO THESE SECURITIES HAS BEEN FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. THESE SECURITIES MAY NOT BE SOLD NOR MAY OFFERS TO BUY BE ACCEPTED PRIOR TO THE TIME THE REGISTRATION STATEMENT BECOMES EFFECTIVE. THIS PROSPECTUS SHALL NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY NOR SHALL THERE BE ANY SALE OF THESE SECURITIES IN ANY STATE IN WHICH SUCH OFFER, SOLICITATION OR SALE WOULD BE UNLAWFUL PRIOR TO REGISTRATION OR QUALIFICATION UNDER THE SECURITIES LAWS OF ANY SUCH STATE.

SUBJECT TO COMPLETION, DATED AUGUST 9, 1996

Prospectus

AMTECH SYSTEMS, INC.

2,835,000 Shares of Common Stock

This Prospectus relates to 2,415,000 shares of the \$.01 par value common stock (the "Common Stock"), of AMTECH SYSTEMS, INC. ("Amtech" or the "Company") which may be issued upon exercise of the Redeemable Common Stock Purchase Warrants (the "Redeemable Warrants") issued in connection with the Company's public offering of Units on December 15, 1994 (the "Unit Offering"), each "Unit" consisting of six shares of Common Stock and three Redeemable Warrants. This Registration Statement also covers up to 210,000 shares of Common Stock issuable as components of up to 35,000 Units that are issuable upon exercise of a warrant granted to the underwriter of the Unit Offering (the "Representative's Warrant"), and 210,000 shares of Common Stock underlying the Redeemable Warrants issuable as components of Units issued upon exercise of the Representative's Warrant. Each Redeemable Warrant entitles the registered holder thereof to purchase two shares of Common Stock at a price of \$2.75 per share until December 15, 1999, subject to adjustment in certain circumstances. The Warrants are redeemable, subject to the Company's option, at \$.05 per Redeemable Warrant on 30 days written notice, if the market price for the Common Stock for the 20 days ended not more than 10 days prior to the date that such notice is given equals or exceeds \$3.25 per share. See "PLAN OF DISTRIBUTION."

The Common Stock and Redeemable Warrants are traded on the Nasdaq SmallCap Market under the Symbols "ASYS" and "ASYSW", respectively. On August 5, 1996, the closing price for the Common Stock was \$4.4375 per share, and the closing price for the Redeemable Warrants was \$3.625 per warrant.

FOR A DISCUSSION OF CERTAIN FACTORS THAT SHOULD BE CONSIDERED BY

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE
SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES
AGENCY NOR HAS THE COMMISSION OR ANY SUCH AGENCY PASSED
UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY
REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus is _____, 1996.
AVAILABLE INFORMATION

The Company is subject to the informational requirements of the Securities Exchange Act of 1934 (the "Exchange Act") and, in accordance therewith, files reports, proxy statements and other information with the Securities and Exchange Commission (the "Commission"). Such reports, proxy statements and other information filed by the Company with the Commission can be inspected and copied at the public reference facilities maintained by the Commission at 450 Fifth Street, N.W., Room 1024, Washington, D.C. 20549, and at the following Regional Offices of the Commission: Northeast Regional Office, 7 World Trade Center, Suite 1300, New York, New York 10048; and Midwest Regional Office, 500 W. Madison Street, Suite 1400, Chicago, Illinois 60661. Copies of such material can be obtained from the Public Reference Section of the Commission at Room 1024, 450 Fifth Street, N.W., Washington, D.C. 20549, upon payment of prescribed rates.

The Company has filed with the Securities and Exchange Commission, Washington, D.C. 20549, a Registration Statement on Form S-3 under the Securities Act with respect to the Common Stock offered hereby. This Prospectus does not contain all the information set forth in the Registration Statement and the exhibits and the schedules thereto. For further information with respect to the Company and the Common Stock, reference is made to the Registration Statement including the exhibits and schedules thereto, copies of which may be inspected at the Public Reference Room of the Securities and Exchange Commission, Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549, and copies of any part thereof may be obtained from the office of the Securities and Exchange Commission in Washington, D.C. upon the payment of the prescribed fee. The statements contained in this Prospectus and the contents of any contract or other document filed as an exhibit are of necessity brief descriptions thereof, are not necessarily complete and the full text of such statements is qualified in its entirety by reference to such contract or document.

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INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The following documents have been filed with the Commission by the Company and are hereby incorporated by reference into this Prospectus: (i) the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1995; (ii) the Company's Quarterly Report on Form 10-Q for the quarter ended December 31, 1995; (iii) the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 1996, (iv) the description of the Company's Common Stock contained in the Company's Registration Statement on Form 8-A filed with the Commission pursuant to Section 12(g) of the Exchange Act, and (v) the description of the Company's Redeemable Common Stock Purchase Warrants contained in the Company's Registration Statement on Form 8-A filed with the Commission pursuant to Section 12(g) of the Exchange Act. All other documents and reports filed pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act from the date of this Prospectus and prior to the termination of the offering of the Common Stock shall be deemed to be incorporated by reference herein and shall be deemed to be a part hereof from the date of the filing of such reports and documents.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Prospectus to the extent that a statement contained herein or in any subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Prospectus.

The Company will provide without charge to each person to whom a copy of this Prospectus is delivered, on written or oral request of such person, a copy of any or all documents which are incorporated herein by reference (not including the exhibits to such documents, unless such exhibits are specifically incorporated by reference in the document which this Prospectus incorporates). Requests should be directed to the Secretary, Amtech Systems, Inc. 131 South Clark Drive, Tempe, Arizona 85281, telephone number (602) 967-5146, facsimile number (602) 968-7363.

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PROSPECTUS SUMMARY

The following summary of selected portions of this Prospectus is qualified

in every respect by the more detailed information contained elsewhere herein, including the financial statements and related notes incorporated by reference herein. The risks of an investment in the Securities offered hereby are described under RISK FACTORS. Each prospective investor is urged to read this Prospectus in its entirety.

The Company

Amtech Systems, Inc. is engaged primarily in the manufacture and marketing of several items of capital equipment, one of which is patented, used by customers in the manufacture of semiconductors. The Company's Processing/Loading products are designed to permit its customers to increase the degree of control over their semiconductor chip manufacturing environment and to reduce exposure to contaminants by limiting human contact during the process. The Company's wholly-owned subsidiary, Tempress Systems, Inc., is engaged in the complementary business of manufacturing and selling horizontal diffusion furnaces for semiconductor fabrication. The Company also has a 45% ownership interest and 50% voting interest in Seil Semicon, Inc., a South Korean start-up joint venture that plans to develop and operate a silicon test wafer reclaiming business. In addition, the Company recently obtained a U.S. patent on technology on which it expects to base a proposed new photo chemical vapor deposition ("CVD") product for use in semiconductor manufacturing facilities. The Company has engaged the University of California, Santa Cruz, to conduct a study to determine the feasibility of such a product. If the results of the study are favorable, the Company intends to commence to design, manufacture and market a photo CVD product. See "THE COMPANY -- CVD Technology."

Until recently, the Company also was engaged in the technical contract personnel business through a subsidiary, Echelon Service Company ("Echelon") in Baltimore, Maryland. In December 1995, the Company disposed of the stock of Echelon in order to allow the Company to focus on its core semiconductor equipment business.

Written requests for further information should be directed to the Secretary, Amtech Systems, Inc., 131 South Clark Drive, Tempe, Arizona 85281; Facsimile Number (602) 968- 7363.

The Offering

Securities Offered: 2,835,000 shares of Common Stock issuable upon the exercise of the Redeemable Warrants and the Representative's Warrant.

Common Stock Outstanding: 4,109,668 shares outstanding as of July 19, 1996.

Estimated Proceeds If all of the Redeemable Warrants and the Representative's Warrant are exercised, the estimated proceeds to the Company will be approximately \$7,691,250. The Company will not receive any of the proceeds from the subsequent sale of the Common Stock.

Use of Proceeds Any proceeds received by the Company from time to time upon exercise of the Redeemable Warrants or the Representative's Warrant will be added to the Company's working capital and will be used for general corporate purposes. The Company will not receive any of the proceeds from the subsequent sale of the Common Stock.

NASDAQ Symbols Common Stock: ASYS
Redeemable Warrants: ASYSW
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THE COMPANY

Amtech Systems, Inc. is engaged primarily in the manufacture and marketing of several items of capital equipment, one of which is patented, used by customers in the manufacture of semiconductors. The Company's Processing/Loading product line (Atmoscan(R), IBAL and load stations) is designed to permit its customers to increase the degree of control over their semiconductor chip manufacturing environment and to reduce exposure to contaminants by limiting human contact during the process. The Company's wholly-owned subsidiary, Tempress Systems, Inc., is engaged in the complementary business of producing and selling horizontal diffusion furnaces for semiconductor fabrication. The Company also has a 45% ownership interest and 50% voting interest in Seil Semicon, Inc., a South Korean start-up joint venture that plans to develop and operate a silicon test wafer reclaiming business. In addition, the Company recently obtained a U.S. patent on technology on which it expects to base a proposed new photo chemical vapor deposition ("CVD") product for use in

semiconductor manufacturing facilities. The Company has engaged the University of California, Santa Cruz, to conduct a study to determine the feasibility of such a product. If the results of the study are favorable, the Company intends to commence to design, manufacture and market a photo CVD product. See "SEMICONDUCTOR EQUIPMENT BUSINESS," below.

Until recently, the Company also was engaged in the technical contract personnel business through a subsidiary, Echelon Service Company ("Echelon") in Baltimore, Maryland. In December 1995, the Company disposed of the stock of Echelon in order to allow the Company to focus on its core semiconductor equipment business. See "RECENT EVENTS -- Sale of Contract Personnel Business," below.

SEMICONDUCTOR EQUIPMENT BUSINESS

General

The Company is engaged primarily in the manufacture and marketing of several items of capital equipment used by customers in the manufacture of semiconductors. Semiconductors, or semiconductor "chips," are made of silicon and are part of the circuitry of electronic computers. The manufacture of semiconductors involves many complex operations during which silicon wafers (the substrates from which chips are made) are inserted in a diffusion furnace and subjected to the precise flow of gases under very intense heat. The Company's Processing/Loading product line is intended to permit customers using horizontal diffusion furnaces to increase the degree of control over the manufacturing environment and to reduce exposure to contaminants by reducing the amount of human contact during the process. Following an industry trend, the size of individual chips has tended to decrease and the size of the wafers from which chips are made has tended to increase. As a result, the value of each wafer has increased because each is the source of an increased number of chips. As the value of wafers increase, so too does the importance of control over the manufacturing environment. In addition to the Company's Processing/Loading product line, through its wholly owned subsidiary, Tempress Systems, Inc., the Company manufactures and sells horizontal diffusion furnaces.

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There is also a trend in the industry, related to the trend to smaller chips, to the use in new semiconductor manufacturing facilities of newer technology, vertical diffusion furnaces, which are more efficient to use than older technology horizontal diffusion furnaces in certain manufacturing processes of smaller chips on larger wafers. Vertical diffusion furnaces are, however, significantly more expensive to purchase than horizontal diffusion furnaces. The Company's Processing/Loading product line is useable with horizontal diffusion furnaces only. The Company's target market consists of customers who wish to increase the efficiency of their existing semiconductor manufacturing facilities equipped with horizontal diffusion systems. With the addition of Tempress' operations, the Company also can provide its customers with efficient integrated horizontal diffusion furnace systems. The Company's target market also includes customers who build new facilities but whose operations do not require the higher priced vertical diffusion furnace systems. Based on market information obtained through customer and market contacts, the Company believes that a majority of worldwide semiconductor manufacturing facilities are equipped with horizontal diffusion furnaces, as compared with vertical diffusion furnaces. While the Company estimates that in the next several years the percentage of facilities in the world equipped with each type of system will become equal, it believes that a significant demand for its present product line will continue to exist, although there can be no assurance in that regard. The Company plans to increase its share of the market by expanding its manufacture and sales of horizontal diffusion furnaces. Tempress recently acquired a 9,900 square foot facility in Heerde, The Netherlands, for its European operations. Tempress expects to move its operations into the new facility in the fall of 1996.

Processing/Loading Equipment

Atmoscan (R)

The Company's "Atmoscan(R)" is a patented controlled environment wafer processing system for use with horizontal diffusion furnaces. It is comprised of a flanged quartz tube and several metal parts. When in use, the flanged tube is loaded with wafers and inserted into the diffusion furnace under a nitrogen controlled environment. The technology protected by the Company's Atmoscan(R) patents is a processing method that includes a cantilever tube that carries wafers and through which a purging inert gas flows during the loading and unloading of wafers into and out of the diffusion furnace.

The Company believes that among the major advantages afforded by the Atmoscan(R) product are increased control of the environment of the wafers during the gaseous and heating process, thereby increasing yields and decreasing manufacturing costs, and a decreased need for the cleaning of diffusion furnace tubes, which ordinarily involves substantial expense and equipment down time. Additional significant economies in the manufacturing process are also believed to result.

The Company has manufactured and sold Atmoscan(R) units to major semiconductor manufacturers in the United States, the Pacific Rim and Europe, including at various times to International Business Machines, Intel Corporation, Samsung, Digital Equipment Corp., Motorola, SGS-Thompson and others. During fiscal 1995, Atmoscan(R) units were sold in a price

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range of approximately \$26,000 (for simpler models without accessories or ancillary items) to approximately \$70,000 (for more complex models). As discussed elsewhere, sales of Atmoscan(R) have declined from their peak in 1989, due to an industry trend toward use of vertical diffusion furnaces.

The Company has designed and sells an open cantilever paddle system as an alternative to the closed processing method of the Atmoscan(R). The per unit price is approximately \$13,000-\$18,000, depending upon the customer's specifications.

IBAL

"IBAL" is an acronym for "Individual Boats with Automated Loading." Boats are quartz trays that hold silicon wafers while they are being processed in diffusion furnaces. IBAL is a device, including software, which automatically places boats into Atmoscan(R) tubes or on open cantilever paddle systems before they are inserted in the diffusion furnace and automatically removes the trays after completion of the process. The Company has sold units of the IBAL for approximately \$20,000 to \$25,000 each, not including the price of the Atmoscan(R) or open cantilever paddle system. Use of the IBAL products reduces human handling and, therefore, reduces exposure of wafers to contaminants during the loading and unloading of the process tubes.

The IBAL Butler is a robotics device which further automates the loading of wafers into the diffusion furnace by automatically transferring wafer carriers onto the IBAL for loading into the Atmoscan(R) for the appropriate furnace tube. The unit price for the IBAL Butler is approximately \$40,000.

The IBAL Queue provides a convenient staging area for the operator to place boats on a load station and automates the loading of those boats onto the IBAL Butler. IBAL Queue was first developed and offered for sale in the fourth quarter of 1993 and the first unit was shipped during the second quarter of fiscal 1994. The unit price for the IBAL Queue is \$27,000.

Load Stations

The products described above are offered and sometimes sold as a complete system, mounted on a device called a "load station," which also includes an ultra-clean environment for wafer loading by filtering and controlling the flow of air. The Company began shipping load stations in fiscal 1992. The price for the load station alone (in addition to the price for the component systems described above) is approximately \$60,000, depending upon the complexity of a customer's requirements. Depending on configuration, which varies from order to order, complete load stations with loaders and IBAL automation have been sold at prices between \$150,000 and \$320,000.

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Diffusion Furnaces

Through its wholly owned subsidiary, Tempress Systems, Inc., the Company produces and sells horizontal diffusion furnaces with the Tempress(R) trademark under the Amtech/Tempress name. These furnaces utilize existing industry technology for sale to customers who do not require the advanced automation of, or cannot incur the major expense of acquiring, vertical diffusion furnaces. While the major advantage of vertical diffusion furnaces is their susceptibility to increased automation, which decreases the degree of human intervention in the manufacturing process, the use of horizontal diffusion furnaces, with less automation, is more economical for larger size chips and multi-model semiconductor manufacturing. While overall market demand for horizontal diffusion furnaces is declining, the Company believes that a niche market will persist. The price range of automated diffusion furnace systems is approximately \$100,000 to \$850,000, depending on the customer's requirements.

The Company has transitioned from being a distributor of horizontal diffusion furnaces substantially assembled by suppliers to being a manufacturer. The Company continues to acquire the frames and covers for furnaces from subcontractors. This transition has resulted in an increase in both the number and variety of products offered by the Company and is part of a plan to expand its sales, marketing and manufacturing capabilities. The Company has expended substantial sums to acquire assets and to fund the start-up and operation of the horizontal diffusion furnace business. The Company acquired certain assets previously owned by a bankrupt company, Tempress B.V., located in The Netherlands. That business involved the development, manufacture and sale of a number of different products, including a horizontal diffusion furnace. The Company also acquired from the bankrupt estate the right to use the trade name "Tempress" in connection with such furnaces. The right to use the tradename "Tempress" is also held by three subsidiaries of the former Tempress B.V. in connection with the sale of other Tempress products and services unrelated to the horizontal diffusion furnace. The Company has hired a number of former Tempress technical and sales personnel to design, manufacture and sell its own

furnace products under the "Tempress" name. The Company believes that the causes of the Tempress bankruptcy were related to the fact that Tempress was undercapitalized and that large expenditures were incurred in the development of other products, and was not related to the quality or reputation of the Tempress products. Accordingly, the Company believes that a diffusion furnace product designed by former Tempress product engineers and sold under the "Tempress" name will be accepted by the Company's targeted market.

There is, of course, no assurance of success in the Company's efforts to design and market horizontal diffusion furnace products. If the Company's efforts do not succeed, the Company may suffer significant losses. The Company's ability to carry out its plan is subject to risk, arising in part from the cyclical nature of the business. There is a further risk that, as is estimated by at least one market research firm, the installation of new vertical diffusion furnaces will increase at a faster rate than is estimated by the Company. In that case, the demand for and sales of the Company's horizontal diffusion furnaces may be below the Company's estimates, its revenue and possible earnings may not increase as expected and the

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period of losses for The Netherlands operation may extend for a period longer than the start-up phase.

CVD Technology

The Company has patented a certain invention which it believes may be of significant importance to the semiconductor manufacturing industry. It is now having a research study conducted to determine the feasibility of developing semiconductor manufacturing equipment using this patented invention. The invention relates to an improvement to the photo-assisted CVD process used in the manufacture of certain semiconductors. The improvement uses ultraviolet light to activate the deposition reactions rather than thermal heat or plasma, which are presently the common means in commercial CVD processing. This photo-assisted CVD process is separate and distinct from the diffusion process in which the Company's existing products are used and its use is not limited to horizontal diffusion furnace facilities as are the Company's existing products.

A photo-assisted CVD process is potentially attractive for the manufacture of semiconductors because it allows a less severe processing environment. First, the photo-assisted CVD processes occur at lower temperatures and the lower temperature reduces the risk of defects in the deposited materials. In this process, ultraviolet or UV light is used as the energy source to effect the deposition of chemicals on the wafers. The photo-assisted CVD processes also avoid radiation damage which can occur with currently prevalent processes. Furthermore, photo-assisted CVD processes based on the Company's patented method are more readily adaptable to the use of larger wafers (the silicon substrates from which semiconductor chips are made) than other CVD processes now in use. The trend in the industry is to the use of larger size wafers and smaller size chips.

The Company has not determined whether a commercially feasible product can be developed from this technology. The Company has entered into a Research Agreement with the Regents of the University of California ("University") whereunder a feasibility study is being undertaken by the University under the direction of Roger W. Anderson, Ph.D. It is anticipated that, if the results of the University study are favorable, the Company will design and develop specifications for an initial photo-assisted CVD device. The initial device is expected to have one "chamber," containing a number of light pipes and a pedestal (called a susceptor) to hold wafers and would be sold to academic and industry research facilities. If use by such facilities results in acceptance of the technology by the industry, the Company will attempt to develop a fully automatic multi-chamber, multi-wafer product for mass production of semiconductors. The automation (or robotic) components of the product are expected to be procured from other manufacturers.

The Company's current plans for the proposed new photo CVD product are conceptual only. Detailed planning is expected to be done if, as and when the University study demonstrates the product's commercial feasibility. The development of first a research laboratory product and then an industrial product is expected to take a period of approximately two to three years.

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The total cost of the photo-assisted CVD product development effort is expected to be approximately \$3,200,000, expended in stages over a two to three year period. All of the Company's plans and estimates are subject to significant uncertainties.

Wafer Reclaiming Venture

In November 1995, the Company entered into a joint venture agreement pursuant to which it acquired a 45% ownership interest and a 50% voting interest in Seil Semicon, Inc. Seil Semicon, Inc., which is in the preliminary start-up phase intends to develop and operate a silicon test wafer reclaiming business. The Company agreed to invest \$500,000 in the venture, \$425,000 of which has been paid and up to \$75,000 of which may be called at the time Seil Semicon obtains \$3 million in third party financing. Seil Semicon has acquired real property for construction of the reclamation facility. The ultimate success of the venture

depends on a number of factors, including securing adequate financing, of which there can be no assurances.

Sales & Marketing

The Company markets its products by participation in trade shows, by direct customer contact by the Company's sales personnel (the President and two salesmen in the United States and two sales and marketing personnel located in The Netherlands) and through independent sales representatives and distributors. The Company is dependent on its President, J.S. Whang, for continuing relationships with key customers. There are presently eight independent sales representatives, each covering a specified geographical area on an exclusive basis. The areas now covered by representatives are the State of Florida, the New England area, Northern Europe, Central Europe (including Germany), France, India, Italy, Korea, Taiwan, and the People's Republic of China. Representatives are paid a commission as specified from time to time in the Company's commission schedule, which at present is higher for complete units and lower for spare parts and accessories.

During fiscal 1995, two customers accounted for 28% and 11% respectively, of equipment sales. No other customers accounted for 10% or more of this segment's sales.

Semiconductor equipment sales generally fluctuate with the level of capital spending in the semiconductor industry. The semiconductor business is cyclical.

Competition

The Company is not aware of any significant product which directly competes with the Atmoscan(R), however, there are several processing systems and various configurations of existing manufacturing products which provide advantages similar to those that the Company believes the Atmoscan(R) provides to semiconductor manufacturers. Notwithstanding the industry trend to the use of vertical diffusion furnaces (with which Atmoscan(R) is not useable), the Company believes that a number of customers are and will continue to be willing to buy Atmoscan(R) units for use with horizontal diffusion furnaces because the Atmoscan(R) provides better results in terms of more uniform wafer temperature and dispersion of heated gases in the semiconductor manufacturing process, less exposure of semiconductor wafers to contaminants, and other

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technical advantages which afford to its users a higher yield and, therefore, a lower per item cost in the manufacture of semiconductors. The Company believes that there are several products in the market which perform the same functions as the IBAL automation products, IBAL Atmoscan(R), IBAL Butler and IBAL Queue, but they are more complex and more expensive. The IBAL products are intended for customers who do not require the more complex systems. Load stations are sold to customers that are upgrading their existing facilities with other products of the Company. These load stations provide a cleaner environment to those they replace and can reduce the down-time for the upgrade as these load stations were specifically designed to accept the Company's products without further modification. Products competitive with the Company's load station are sold by several well-established firms, larger than the Company. The Company believes, however, that there is a niche market for its load stations because Atmoscan(R) and IBAL are included as components. The cantilever system is designed for easy assembly and disassembly to minimize down-time during maintenance. The Company currently sells its horizontal diffusion furnaces to customers who purchase them in small quantities and expects that it will maintain a competitive position through its policy of providing competitive prices and product support services designed for the customer's specific requirements.

Employees

The Company presently employs 44 people (including the corporate officers and four contract employees) in its semiconductor equipment business; 16 in manufacturing, 14 in engineering, seven in administration, and seven in sales positions. Of these, 27 are employed at the Company's offices and plant in Tempe, Arizona, and 17 at Tempres' facility in The Netherlands.

FINANCIAL INFORMATION ABOUT FOREIGN AND DOMESTIC OPERATIONS AND EXPORT SALES

The following table shows the amounts of revenue attributable to the Company's foreign sales for the past three fiscal years (the United States equipment sales being included in the table for comparison purposes). All foreign sales were associated with the Company's semiconductor equipment business and none were to affiliates.

<TABLE>
<CAPTION>

1993	1995	1994
<S>	<C>	<C>
<C>	<C>	<C>

United States (1) (49%)	\$2,462,852	(36%)	\$2,472,176	(51%)	\$2,003,064
Far East (2) (44%)	3,483,419	(51%)	1,136,432	(26%)	1,798,670
Europe (3) (7%)	493,786	(7%)	222,376	(5%)	286,152
India (0%)	424,011	(6%)	500,095	(12%)	-
-	-----	-----	-----	-----	-----
Total (100%)	\$6,864,068	(100%)	\$4,331,079	(100%)	\$4,087,886

- (1) Includes sales in Canada, which are not material.
(2) Includes Korea, Singapore, Taiwan, Japan and the People's Republic of China.
(3) Includes sales in Israel, which are not material.

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RISK FACTORS

Any investment in the securities offered hereby will involve a high degree of risk. Prospective investors should carefully consider the following risk factors before making an investment decision.

1. New Horizontal Diffusion Furnace Product. The Company has invested approximately \$1.6 million in cash in the acquisition of assets currently used by Tempress in the manufacture and sale of horizontal diffusion furnaces and to fund the start-up losses and operation of that business. Those assets include certain items purchased from another company which had previously acquired the entire business of a bankrupt company, Tempress B.V., located in The Netherlands. The Company recently acquired a facility in The Netherlands for Tempress' operations. The Company also acquired from the bankrupt estate the right to use the trade name "Tempress" in connection with such furnaces. The Company has also hired a number of former Tempress technical and sales personnel with a view to designing, manufacturing and selling its own furnace products under the "Tempress" name. The Company believes that the causes of the Tempress bankruptcy were related to the fact that Tempress was undercapitalized and that large expenditures were incurred in the development of other products and unrelated to the quality and customer acceptance of the Tempress horizontal diffusion furnace. The Company further believes that employing certain former Tempress personnel and using that trade name will facilitate the Company's efforts to sell its furnace products. While the expenses associated with this new expansion are expected to result in an initial period of operating losses for the Company, such losses are expected to be recovered during subsequent periods if the expansion is successful. There is of course no assurance of success in this effort and if the Company's efforts do not succeed, the Company may suffer the permanent loss of approximately \$1,600,000. There is a further risk that, as is estimated by at least one market research firm, the installation of new vertical diffusion furnaces will increase at a faster rate than is estimated by the Company. In that case, the demand for and sales of the Company's horizontal diffusion furnaces may be below the Company's estimates, its revenue and possible earnings may not increase as expected and the period of losses for The Netherlands operation may extend beyond the start up phase. See "THE COMPANY" and RISK FACTOR NO. 5, below.

2. Proposed New Photo CVD Product. A substantial portion of the Company's cash has been and will continue to be applied to the development of a proposed new photo-assisted CVD product based on patented technology which has not yet been shown to be functionally or economically feasible. On March 2, 1994, the Company entered into an agreement with the University of California, Santa Cruz ("University"), whereunder the University is conducting certain research with a view to determining the feasibility of a successful development effort. Although the Company plans to terminate the research and development at any time if it does not appear to be commercially feasible, termination would result in the incurrence of substantial losses. The Company's management estimates that it will need to expend approximately \$3.2 million to develop marketable models of a photo-assisted CVD product. However, actual expenditures may materially exceed the Company's present estimates because of unexpected technical engineering or manufacturing requirements, general price increases, etc. The estimated

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expenditures for the development of the proposed new product do not include any provision for the expansion of facilities for the manufacture of such new product. Since operating revenues are unlikely to result in sufficient cash flow to provide such additional funds, the source of such funds may be additional capital investment which, if available when required, would dilute the ownership percentage of shareholders of the Company.

3. Adequacy of Financing. Additional financing is expected to be required for the implementation of the Company's plans for expansion. There is no assurance that any additional financing will be available if and when required, or, even if available, that it would not materially dilute the ownership percentage of the then existing shareholders.

4. Assumptions. The Company's plans for the financing and development of its proposed business expansion are based on the experience, market information and judgment of Management and upon certain assumptions. Management's assumptions include in particular, the Company's ability to obtain the share of the horizontal diffusion furnace market formerly held by Tempress, the success of its expanded sales and marketing force, the feasibility of its proposed new photo-assisted CVD product, the development of a market for the new product, the sufficiency of funds available for its development and marketing and, if those assumptions prove to be invalid, the availability of other opportunities for expansion. Management also assumes that sales for the Company's existing products will continue at current levels for approximately three years. There is no assurance that the Company's plans will be realized or that any of the assumptions made will prove to be correct. Even if the assumptions underlying its plans prove to be correct, there can be no assurance that the Company will not incur substantial operating losses in attaining its goals. See "THE COMPANY."

Management believes that the Company's future profitability and long term growth will depend on the continued introduction of new products which embody either newly developed technology or improvements of existing products. There is no assurance of any short term or long term success in any development or acquisition effort or in penetrating any market. Since its present product line consists of equipment suitable only for semiconductor manufacturing facilities using horizontal furnace technology, the most significant market for the Company's existing products is most likely to be limited to existing horizontal furnace facilities or new facilities which, because of cost considerations, are likely to continue to buy new horizontal furnaces.

5. Demand for Horizontal Diffusion Furnace Equipment. Demand for the Company's existing products, which are used in conjunction with horizontal diffusion furnaces, has declined in recent years because of a trend to competing newer vertical diffusion furnace technology in the industry. Based on Management's market information, the Company expects the market for such products to remain relatively stable for a period of approximately three years, although there is no assurance in that regard. Rather than expecting to increase sales as the result of a growing market, therefore, the Company expects to achieve that result by increasing its share of an existing market. Realization of that expectation will depend on the success of its plan to expand its sales and marketing force and its product line. Such expansion is expected to result in more complete sales coverage in Europe and in the ability of the Company to offer a more complete product mix, which will result in an increase in sales and revenue. Among the

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uncertainties affecting the Company's plan is the reaction of other capital equipment manufacturers competing for greater shares of the same market.

6. Cyclical Nature of the Semiconductor Manufacturing Industry. The semiconductor industry in which the Company sells its products is highly cyclical and has historically experienced periodic downturns, which often have had a severe effect on the demand for semiconductor manufacturing equipment. Prior semiconductor industry downturns have resulted in significant reductions in the Company's net sales, gross margin and net income. Moreover, this business will continue to be dependent on the capital expenditures of semiconductor manufacturers, which in turn will be largely dependent on the current and anticipated market demand for integrated circuits and products utilizing integrated circuits. Semiconductor manufacturers are currently experiencing a significant decrease in order bookings. In addition, the prices for semiconductors have declined dramatically, squeezing manufacturers' margins. These factors may affect semiconductor manufacturers' decisions to purchase capital equipment such as the Company's products. Further price declines due to increased supply of semiconductors may have a material adverse effect on the Company's business and results of operations.

7. Dependence on Certain Foreign Markets; Risks Associated with Foreign Operations. During its most recent fiscal year, ended on September 30, 1995, 64% of the Company's equipment sales were made to foreign customers in the Far East (51%), Europe (7%) and in India (6%). Foreign sales are expected to increase significantly as the result of the Company's proposed expansion of its horizontal diffusion business in Europe. While the Company's business has not been adversely affected in the past by its foreign business, there is a risk that it may be adversely affected in the future. Such risk includes possible losses on account of currency exchange rate fluctuations, possible future prohibitions against repatriation of earnings, or proceeds from disposition of investments, and from possible social and military instability in the case of India, South Korea and possibly elsewhere.

The Company's wholly owned subsidiary, Tempress Systems, Inc., conducts its operations in The Netherlands. As a result, such operations are subject to the taxation policies, employment and labor laws, transportation regulations, import and export regulations and tariffs, foreign exchange restrictions, international monetary fluctuations, and other political, economic and legal policies of that nation, the European Economic Union and the other European nations in which it conducts business. Consequently, the Company may encounter unforeseen or unfamiliar difficulties in conducting its European operations. Changes in such laws and regulations may have a material adverse effect on the Company's

operations.

8. Competition. The semiconductor equipment industry is competitive and the Company is relatively small in size and resources in comparison with its competitors. There is risk that larger, better financed competitors will develop and market more advanced products than those now proposed by the Company or that competitors with greater financial resources may decrease prices thereby putting the Company under financial pressure.

9. Dependence on President. The company is now dependent for its management and important business relationships on the active participation of Mr. Jong S. Whang, its

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President. The loss of his services would materially and adversely affect the business of the Company and its future prospects. There is presently insurance on the life of Mr. Whang for the benefit of the Company, in the amount of \$1,000,000 (which may be increased to \$2,000,000), but there is no assurance that such amount will be sufficient to cover the cost of finding and hiring a suitable replacement for Mr. Whang. It may not be feasible for any successor to maintain the same relationships.

10. Joint Venture. In November 1995, the Company entered into a joint venture agreement pursuant to which it acquired a 45% ownership interest and a 50% voting interest in Seil Semicon, Inc. Seil Semicon, Inc., which is in the preliminary start-up phase intends to develop and operate a silicon test wafer reclaiming business. The Company agreed to invest \$550,000 in the venture, \$425,000 of which has been paid and \$125,000 of which will be due at the time Seil Semicon obtains \$3 million in third party financing. Seil Semicon has acquired real property for construction of the reclamation facility. The ultimate success of the venture depends on a number of factors, including securing adequate financing, of which there can be no assurances. If the venture is unable to obtain third party financing, or experiences delays in obtaining third party financing, the Company may be required to invest additional funds in the venture, terminate the venture or attempt to divest its interest in the venture, any of which could result in significant losses to the Company. There can be no assurance that the venture ever becomes operational or profitable.

11. Possible Disputes. The Company has entered into a research agreement with the University whereunder a feasibility study is to be undertaken by the University to develop a prototype model of a product embodying the Company's patented photo-assisted CVD technology. The University claims rights in certain pre-existing intellectual property related to certain photo-assisted CVD designs and processes. While it is understood that the Company's patented technology is to be the primary focus of the study, it is recognized that inventions based on the University's own claims may result from the study. If so, the Company will have a period of 90 days after disclosure to it by the University of such an invention in which to elect to obtain an exclusive, royalty-bearing license to make, use and sell any such invention first actually reduced to practice in the performance of the study. If the Company elects to obtain such a license, it will have 120 days to negotiate the terms of a license agreement. It is possible that the Company and the University may fail to agree on the terms of a license agreement within that 120-day period. If the company fails to enter into a license agreement, the Company will no longer have any rights with respect to such inventions. Furthermore, the royalty rate under any license agreement is to be between .5% and 2% depending on the relative contribution of the parties to the development of any such invention. Disputes could arise between the parties as to such contributions or to the time when the invention was first reduced to practice, which disputes may cause delays in negotiating the terms of a license agreement and could result in litigation.

12. Product Protection and Infringement. The Company has been issued a number of patents covering some of its products. The issuance of those patents do not, however, provide assurance that any of them will protect the Company's products from infringement or otherwise enhance their value. Furthermore, while the Company does not believe that its products infringe on the proprietary rights of any other parties, there can be no assurance that

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the Company will, in the future, have all the patents or other proprietary rights necessary for the conduct of its business; or that other parties will not assert infringement claims against the Company.

13. Possible Loss of NASDAQ Eligibility. While the Company's Common Stock and Warrants are now included on the Nasdaq SmallCap Market ("Nasdaq"), their continued inclusion will depend on the Company's ability to meet certain eligibility requirements established for the Nasdaq SmallCap System. Loss of Nasdaq eligibility could result if the Company sustains material operating losses or if the market price of the securities falls below certain specified levels (below \$1.00 per share in the case of the Common Stock). If any of the Company's securities are ineligible for trading on the Nasdaq system, such securities may be subject to a rule under the Securities Exchange Act of 1934 that imposes additional sales practice requirements on broker-dealers who sell such securities to persons other than established customers and accredited investors (generally institutions with assets in excess of \$5,000,000 or individuals with a net worth in excess of \$1,000,000 or annual income exceeding \$200,000 or \$300,000 jointly with their spouse). For transactions covered by the

rule, the broker-dealer must make a special suitability determination for the purchaser and receive the purchaser's written consent to the transaction prior to the sale. The rule may adversely affect the ability of broker-dealers to sell the Company's securities, and consequently may limit the public market for and the trading price of the securities.

14. State and Federal Registration Requirements for the Exercise of Redeemable Warrants. Holders of the Redeemable Warrants have the right to exercise them only if at the time of exercise the offering and sale of the underlying shares of Common Stock are qualified or registered for sale pursuant to an effective registration statement under the Securities Act of 1933, as amended, and under applicable securities laws of the states in which they reside (if not exempt from such qualification or registration requirements). It is a further requirement that the Company maintain the effectiveness of the Registration Statement of which this Prospectus is a part for the term of the Redeemable Warrants. Holders of Redeemable Warrants residing in states where such shares are not qualified or registered or otherwise exempt from such requirements may be denied the right to exercise them.

15. Redemption of Redeemable Warrants. The Redeemable Warrants will be redeemable by the Company at a rate of \$.05 per underlying share at any time after one year from the date of this Prospectus, provided that the market price for the Common Stock for each of the 20 days ended not more than 10 days prior to the date that such notice is given equals or exceeds \$3.25 per share. Such redemption may force the holders to exercise such Redeemable Warrants and pay the exercise price at a time when it may be disadvantageous for them to do so, or to sell their warrants at the current market price when they might otherwise hold them for possible additional appreciation. If a Redeemable Warrant is not exercised prior to its expiration or redemption, as the case may be, the holder thereof will forfeit the right to purchase the shares of the underlying Common Stock. The Company does not intend to call for any such redemption unless there is then in effect a current registration statement as discussed under RISK FACTOR NO. 14, above.

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16. No Dividends. The Company has never paid cash dividends on its Common Stock and has no plans to do so in the foreseeable future. The Company intends to retain earnings, if any, for business use.

17. Authorization of Preferred Stock. The Company's Articles of Incorporation authorizes the issuance of up to 100,000,000 shares of preferred stock with such rights and preferences as may be determined from time to time by the Board of Directors. Accordingly, the Board of Directors may, without shareholder approval, issue preferred stock with dividend, liquidation, conversion, voting or other rights which could adversely affect the voting power or other rights of the holders of the Company's Common Stock. In addition, the issuance of such preferred stock may have the effect of rendering more difficult or discouraging an acquisition of the company or changes in control of the Company. Although the Company does not currently intend to issue any shares of its preferred stock there can be no assurance that the Company will not do so in the future.

18. Technological Change. Semiconductor manufacturing equipment and processes are subject to rapid technological change. The Company believes that its future success will depend in part upon its ability to continue to enhance its existing products and their process capabilities and to develop and manufacture new products with improved process capabilities that enable semiconductor manufacturers to fabricate semiconductors more efficiently. New product introductions could contribute to quarterly fluctuations in operating results as orders for new products commence and orders for existing products decline. Failure to introduce new products successfully in a timely manner could result in loss of competitive position and reduced sales of existing products. Furthermore, the inability to produce such products or any failure to achieve market acceptance could have a material adverse effect on the Company's business and results of operations.

19. Litigation and Contract Disputes. From time to time, the Company is a party to litigation and disputes incidental to its business and commercial transactions generally. The Company currently is not engaged in litigation, but a certain semiconductor manufacturer has threatened to assert a breach of contract claim against the Company. The Company does not believe it breached any obligations to such party and, if a claim is filed, the Company intends to assert defenses against such claim.

USE OF PROCEEDS

Assuming that the Representative's Warrant and all the Redeemable Warrants are exercised, the net proceeds to the Company are estimated to be approximately \$7,691,250. The proceeds will be allocated to the Company's working capital for Company operations. The Company will not receive any of the proceeds from the subsequent sale of the Common Stock.

DETERMINATION OF OFFERING PRICE

The offering price of the Common Stock subject to this Prospectus has been contractually established at \$2.75 per share, or \$5.50, the exercise price of

the Redeemable Warrants for the purchase of two shares. The offering price of the Units issuable upon exercise of the

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Representative's Warrant has been contractually established at \$13.50 per Unit. This Prospectus may be used from time to time by the Company to issue the shares of Common Stock covered herein upon the exercise of Redeemable Warrants or the Representative's Warrant by holders thereof.

PLAN OF DISTRIBUTION

The Company will cause the issuance of the shares of Common Stock to Redeemable Warrant holders or to the Representative or its designee upon proper exercise of the Redeemable Warrants or the Representative's Warrant, as the case may be. The Common Stock issuable on exercise of the warrants, when issued, will be included in the outstanding shares of the Company quoted on the Nasdaq SmallCap Market.

The Company will pay the expenses incident to the registration of the securities offered hereby. The Company will not pay any expenses incident to the offering and sale of the Common Stock by the holders thereof.

Transfer Agent and Warrant Agent

The Transfer Agent for the Common Stock and the Redeemable Warrants is American Securities Transfer, Incorporated, of 938 Quail Street, Suite 101, Lakewood, Colorado 80202-1817.

RECENT EVENTS

Sale of Contract Personnel Business. In October 1995, the Board of Directors of the Company determined to dispose of the contract personnel business in order to allow the Company to focus on its core semiconductor equipment business. On December 29, 1995, Amtech entered into an Agreement and Plan of Reorganization and Corporate Separation with Eugene R. Hartman, a Vice President and director of Amtech and the President of Echelon (the "Agreement"), to split-off the contract personnel business operated by Amtech through Echelon. On January 29, 1996, the parties closed the split-off transaction (the "Split-Off") effective as of December 31, 1995. The Company transferred all of the stock of Echelon held by it to Mr. Hartman in exchange for 98,016 shares of Amtech Common Stock held by Mr. Hartman. The total consideration for the Echelon stock was valued at approximately \$800,000. A cash dividend in the amount of \$393,368 was distributed by Echelon to Amtech prior to the Split-Off in order to equalize values. Pursuant to the Agreement, Mr. Hartman acquired all of the assets and assumed all of the liabilities of Echelon.

Prior to entering into the Echelon Agreement with Mr. Hartman, the Company sought and negotiated offers from third parties. However, in the opinion of the Board, the best offer was tendered by Mr. Hartman. The transaction was conducted at arms' length, and management does not believe that a better deal could have been made with unrelated third parties.

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As of January 26, 1996, Mr. Hartman resigned as an officer of Amtech and as of February 29, 1996, Mr. Hartman ceased to be a director of the Company upon election of his successor at the Company's annual meeting of shareholders.

Industry Slowdown. Semiconductor manufacturers currently are experiencing a significant decrease in order bookings. In addition, the prices for semiconductors have declined dramatically, squeezing manufacturers' margins. These factors may affect semiconductor manufacturers' decisions to purchase capital equipment such as the Company's products. Further price declines due to increased supply of semiconductors may have a material adverse effect on the Company's business and results of operations.

Increased Backlog. During recent periods, the Company has been experiencing a significantly greater order backlog than prior periods. The increase in the backlog is due in substantial part to a substantial multi-year order, expanded product line and customers' requested delays in deliveries from that scheduled in the original purchase orders. Also, the Company has experienced long lead-times in purchasing certain components from suppliers of quartz parts, which has and is resulting in the Company taking up to six months to deliver equipment that contains such quartz parts.

EXPERTS

The financial statements of the Company as of September 30, 1995, and for each of the three years in the period ended September 30, 1995, incorporated by reference herein and in the registration statement, have been audited by Arthur Andersen LLP, independent public accountants, as indicated in the reports with respect thereto, in reliance upon the authority of said firm as experts in giving said reports.

LEGAL MATTERS

The legality of the securities offered hereby has been passed upon for the

NO PERSON HAS BEEN AUTHORIZED TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS OTHER THAN THOSE CONTAINED IN THIS PROSPECTUS OR ANY RELATED PROSPECTUS SUPPLEMENT AND, IF GIVEN OR MADE, SUCH INFORMATION OR REPRESENTATIONS MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORIZED. NEITHER THIS PROSPECTUS NOR ANY PROSPECTUS SUPPLEMENT CONSTITUTES AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY ANY SECURITIES OTHER THAN THE SECURITIES DESCRIBED IN THIS PROSPECTUS AND RELATED PROSPECTUS SUPPLEMENT OR AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY SUCH SECURITIES IN ANY CIRCUMSTANCES IN WHICH SUCH OFFER OR SOLICITATION IS UNLAWFUL. NEITHER THE DELIVERY OF THIS PROSPECTUS OR ANY RELATED PROSPECTUS SUPPLEMENT NOR ANY SALE MADE HEREUNDER SHALL, UNDER ANY CIRCUMSTANCES, CREATE ANY IMPLICATION THAT THERE HAS BEEN NO CHANGE IN THE AFFAIRS OF THE COMPANY SINCE THE DATE HEREOF OR THAT THE INFORMATION CONTAINED HEREIN OR THEREIN IS CORRECT AS OF ANY TIME SUBSEQUENT TO ITS DATE.

AMTECH SYSTEMS, INC.

2,835,000 Shares of Common Stock

PROSPECTUS

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PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The estimated expenses in connection with the issuance and distribution of the securities being registered, other than underwriting compensation, are as follows:

SEC registration fee.....	\$ 2,489
Legal fees and disbursements.....	\$10,000
Accounting fees and disbursements.....	\$ 2,000
Blue Sky fees and expenses.....	\$ 7,500
Miscellaneous.....	\$ 7,511
Total.....	\$29,500

The foregoing expenses will be borne by the Company.

Item 15. Indemnification of Directors and Officers.

The right of the shareholders to sue any director for misconduct in conducting the affairs of the Company is limited by Article 14 of the Company's Articles of Incorporation and Arizona statutory law to actions for damages resulting from a breach of a director's fiduciary duty of loyalty, acts or omissions not in good faith or involving intentional misconduct or knowing violations of the law, the unlawful payment of dividends or stock repurchases or transactions in which a director receives an improper personal benefit. Ordinary negligence is not a ground for such a suit.

The Company also has the right, pursuant to Article 11 of the Company's Articles of Incorporation, to indemnify any present or former director or officer of the Company for all expenses incurred by them in connection with any legal action brought or threatened against such person for or on account of any action or omission alleged to have been committed while acting in the course and scope of the person's duties, if the person acted in good faith and in a manner which the person reasonably believed to be in or not opposed to the best interests of the Company, and with respect to criminal actions, had no reasonable cause to believe the person's conduct was unlawful, provided that such indemnification is made pursuant to then existing provisions of Arizona statutory law at the time of any such indemnification. The statute does not limit the liability of directors or officers for monetary damages under the Federal securities laws.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the Company, the Company has been informed that

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in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Item 16. Exhibits.

<TABLE>

<CAPTION>

Exhibit No. -----	Description -----	Method of Filing -----
<S>	<C>	<C>
3.1	Articles of Incorporation	A
3.2	Articles of Amendment to Articles of Incorporation, dated April 27, 1983	A
3.3	Articles of Amendment to Articles of Incorporation, dated May 19, 1987	B
3.4	Articles of Amendment to Articles of Incorporation, dated May 2, 1988	C
3.5	Articles of Amendment to Articles of Incorporation, dated May 28, 1993	G
3.6	Amended and Restated Bylaws	D
5	Opinion of legal counsel	*
10.1	Amended and Restated 1995 Stock Option Plan	H
10.2	1995 Stock Bonus Plan	H
10.3	Non-Employee Director Stock Option Plan	I
10.4	Employment Agreement with Robert T. Hass, dated May 19, 1992	F
10.5	Registration Rights Agreement with J.S. Whang, dated January 24, 1994	G
10.6	J.S. Whang Stock Option Agreement	A
10.7	Employment Agreement with J.S. Whang, dated October 1, 1994	G
10.8	Research Agreement with The Regents of the University of California dated March 1, 1994, together with amendments thereto dated March 1, 1994, March 30, 1994, March 7, 1995, June 26, 1995, October 16, 1995, November 29, 1995, and December 4, 1995.	E
10.9	Amendment to Research Agreement with the Regents of the University of California dated July 8, 1996.	*
10.10	Contract of Sale (Real Property) dated June 21, 1996	*

</TABLE>

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<TABLE>
<CAPTION>

Exhibit No.	Description	Method of Filing
-----	-----	-----
<S> <C>	<C>	<C>
21	Consent of accountants	*
22	Subsidiaries of the Registrant	E
24	Powers of Attorney	See Signature Page

</TABLE>

- -----

- * Filed herewith.
- A Incorporated by reference to the Company's Form S-18 Registration Statement No. 2-83934-LA
- B Incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1987
- C Incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1988
- D Incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1991
- E Incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1995
- F Incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1993
- G Incorporated by reference to the Company's Form S-1 Registration Statement No. 33-77368
- H Incorporated by reference to Company's Form S-8 Registration Statement relating to the Amended and Restated 1995 Stock Option Plan and the 1995 Stock Bonus Plan filed with the Securities and Exchange Commission on August 8, 1996
- I Incorporated by reference to Company's Form S-8 Registration Statement relating to the Non-Employee Directors Stock Option Plan filed with the Securities and Exchange Commission on August 8, 1996

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement;
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement;
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

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provided, however, that paragraphs (1)(i) and (1)(ii) do not apply if the registration statement is on Form S-3, Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the

termination of the offering.

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

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, Amtech Systems, Inc. certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this to Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Tempe and State of Arizona on August 7, 1996.

AMTECH SYSTEMS, INC.
an Arizona corporation

By /s/ Jong S. Whang

Jong S. Whang
President

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned, constitutes and appoints JONG S. WHANG and ROBERT T. HASS, and each of them, his true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Form S-3 Registration Statement and to file the same with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting such attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully and to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that such attorneys-in-fact and agents, or each of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report on Form S-3 Registration Statement has been signed below by the following persons on behalf of the registrant and in the capacities and on the dated indicated:

<TABLE>
<CAPTION>

Signature - -----	Title -----	Date ----
<S> /s/ Jong S. Whang ----- Jong S. Whang	<C> Chairman of the Board, President (Chief Executive Officer)	<C> August 7, 1996
/s/ Robert T. Hass ----- Robert T. Hass	Vice President-Finance (Chief Financial & Accounting Officer); Director	August 7, 1996
/s/ Donald F. Johnston ----- Donald F. Johnston	Director	August 7, 1996
/s/ Alvin Katz ----- Alvin Katz	Director	August 7, 1996
/s/ Bruce R. Thaw ----- Bruce R. Thaw	Director	August 7, 1996

</TABLE>

August 7, 1996

Securities and Exchange Commission
450 Fifth Street, N.W.
Washington, D.C. 20549

Re: Amtech Systems, Inc.
Redeemable Common Stock Purchase Warrants

Ladies and Gentlemen:

We have acted as counsel to Amtech Systems, Inc., an Arizona corporation (the "Company"), in connection with its Registration Statement on Form S-3 (the "Registration Statement") filed under the Securities Act of 1933 relating to the registration of 2,835,000 shares of the Company's Common Stock, \$.01 par value (the "Common Stock"), consisting of (i) 2,415,000 shares of Common Stock issuable upon the exercise of issued and outstanding Redeemable Common Stock Purchase Warrants (the "Redeemable Warrants") issued in the Company's December 15, 1994 public offering of Units (the "Unit Offering"), each Unit consisting of six shares of Common Stock and three Redeemable Warrants; each Redeemable Warrant exercisable for two shares of Common Stock; (ii) 210,000 shares of Common Stock issuable as components of up to 35,000 Units (the "Representative's Units") that are issuable upon exercise of a warrant granted to the underwriter of the Unit Offering (the "Representative's Warrant"); and (iii) 210,000 shares of Common Stock underlying the Redeemable Warrants issuable as components of the Representative's Units issued upon exercise of the Representative's Warrant.

In that connection, we have examined such documents, corporate records and other instruments as we have deemed necessary or appropriate for purposes of this opinion, including the Articles of Incorporation, as amended, and the Bylaws of the Company.

Based upon the foregoing, we are of the opinion that:

1. The Company has been duly organized and is validly existing as a corporation under the laws of the State of Arizona.

Securities and Exchange Commission

August 7, 1996

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2. The 2,415,000 shares of Common Stock issuable upon the exercise of the issued and outstanding Redeemable Warrants issued in the Unit Offering, when issued and sold in accordance with the terms of the Redeemable Warrants, will be validly issued, fully paid and nonassessable.

3. The 210,000 shares of Common Stock issuable as components of the Representative's Units that are issuable upon exercise of the Representative's Warrant; and the 210,000 shares of Common Stock underlying the Redeemable Warrants issuable as components of the Representatives Units issued upon exercise of the Representative's Warrant, when issued and sold in accordance with the terms of the Representative's Units, the Representative's Warrant and the Redeemable Warrants, will be validly issued, fully paid and nonassessable.

We hereby consent to the use of this opinion as an exhibit to the Registration Statement.

Very truly yours,

SQUIRE, SANDERS & DEMPSEY

July 8, 1996

Mr. Mark S. Coburn
University of California, Santa Cruz
Contracts and Grants Office
399C Applied Sciences Building
Santa Cruz, California 95064

Dear Mr. Coburn:

The purpose of this letter is to confirm and to reduce to writing the agreement of Amtech Systems, Inc. ("Sponsor") and The Regents of The University of California ("University") to modify the Research Agreement ("Agreement") between them dated March 2, 1994, as provided in Article 1.1 and below.

Because of delays in the performance of this project, and to provide sufficient time for the University to complete Phase II of the Photo-CVD Project as contained in the report and proposal of Roger Anderson, Ph.D dated February 27, 1996, including but not limited to completion of the work to demonstrate the potential of the NIQ and excimer lamps in various Photo-CVD processes, process development, investigation of alternative process chemistries for the deposition of silicon oxide, silicon nitride, and other materials such as tantalum penta-oxide using Excimer laser activated CVD and to possibly facilitate augmentation of the budget beyond the NIQ lamp, excimer lamp, and excimer laser phases, the Sponsor and the University hereby agree to extend the Agreement to the later of October 31, 1996, or the completion of the proposed work for Phase II.

NOW, THEREFORE, the first sentence of Article 2.1 is hereby modified to read, "The period of performance of this Agreement is March 1, 1994 through the later of October 31, 1996 or the date on which the work contemplated by the February 27, 1996 proposal for Phase II of the Photo-CVD Project has been completed and a report thereon provided to the Sponsor."

FURTHERMORE, the first sentence of Article 4.1 is hereby modified as follows: It is agreed to and understood by the parties hereto that, subject to Article 2, the total cost to the Sponsor shall not exceed \$599,148," an increase of \$243,743 over the initial contract amount, to complete and report on the work of Phase II of the

Continued on next page.....

Mr. Mark S. Coburn
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Photo-CVD Project as contained in the report and proposal of Roger Anderson, Ph.D. dated February 27, 1996, including but not limited to complete the work to demonstrate the potential of the NIQ and excimer lamps in various Photo-CVD processes, process development, and an investigation of alternative process chemistries for the deposition of silicon oxide, silicon nitride, and other materials such as tantalum penta-oxide using Excimer laser activated CVD. It is expressly understood that this increase includes salaries of support staff through the later of October 31, 1996 or the completion of the work and report on Phase II of the Photo-CVD Project and 3 months of salary for Roger Anderson, Ph.D for the summer months of calendar year 1996. It is understood that this extension involves no additional cost to Amtech Systems, Inc., the Sponsor, beyond the increase stated above, even if the University requires time beyond October 31, 1996 to complete and report on Phase II.

There are now commercially available excimer lamps that are not based upon the disclosed designs of Roger W. Anderson, Ph.D.

THEREFORE, the first paragraph of Article 8.2 is hereby replaced with the following: "Unless it is determined by a court of competent jurisdiction that University is unable to do so and provided that Sponsor pays its share of the costs of the research project supported by this Agreement as set forth in Article 4.1, as amended, Sponsor shall be given a time-limited first right to negotiate an exclusive, royalty-bearing license to make, use and sell any patentable invention which is either 1) both (a) included in Method B or Method C and (b) first actually reduced to practice in the performance of research under this Agreement ("Research Invention") or 2) conceived and first actually reduced to practice in the performance of research under this Agreement. This license right shall exclude those patentable inventions using laser light sources which are the disclosed methods of Roger W. Anderson, Ph.D. The license right shall also exclude those patentable inventions using rare gas halogen excimer light sources which are based upon the disclosed designs of Roger W. Anderson, Ph.D, unless they are commercially available in the market place. It is understood and agreed that the Sponsor already has the right to make, use and sell products that include commercially available excimer lamp(s) and Method A, without requiring a license from the University. It is also understood and

agreed that Method A shall be the primary focus of this Research."

Nothing in this letter in any way modifies any of the other provisions of the Research Agreement.

Continued on next page.....

Mr. Mark S. Coburn
University of California, Santa Cruz
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If the foregoing accurately reflects your understanding and you agree as set forth above, please have a copy of this letter signed by a duly authorized person and return it to us, whereupon it will become a binding amendment to the Research Agreement.

Very truly yours,

/s/ J.S. Whang

J.S. Whang
President

JSW:rh

ACCEPTED AND AGREED TO:
THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

By: /s/ Mark Coburn

Their: Director, Office of Sponsored Projects

CONTRACT OF SALE

Today, the twenty-first of June, nineteen hundred and ninety-six, the following parties appeared before me, Mr Eric Feijen, junior civil-law notary, residing in Heerde, deputizing for the civil-law notary practicing in Heerde, Mr Johannes Willibrordus Jozef Maria Schurink: --

..-----

1. Mr Wicher Albertus Reil, organ builder, residing at Korte Soerelseweg 2, 8181 AM Heerde, born in Heerde on the sixteenth of July nineteen hundred and forty-two, married, passport number L 060054, acting in his capacity as managing director of the private limited company Orgelmakerij Gebrs. Reil B.V., with its registered office in Heerde and its principal place of business at Postweg 50/B, 8181 VJ Heerde, and as authorized representative of the sole deputy managing director of the aforementioned private limited company, Mr Johann Ludwig Reil, organ builder, residing at Soerelseweg 8, 8181 AK Heerde, born in Heerde on the twenty-first of April nineteen hundred and thirty-nine, married, passport number L 060045 and legally representing said company in this capacity, which company is acting for itself and as authorized representative of the private limited company Rood Technology Nederland B.V., at the time having its registered office in Heerde; -----

2. Mr Fokko Pentinga, sales manager, residing at Lisztstraat 1, 6815 CN Arnhem, the Netherlands, born in Slochteren, the Netherlands, on the twenty-fifth of February nineteen hundred and fifty-five, married, driving licence number 0070021978, acting in his capacity as authorized representative of Mr Jong Soo Whang, company director, residing at South Maple 831, Mesa, Arizona 85205, United States of America, born in Seoul, Korea on the twenty-second of October nineteen hundred and forty-five, married, who has granted this power of attorney as president of Tempress Systems Inc., in his capacity as legal representative of the company under the laws of the state of Texas, United States of America: Tempress Systems Inc., having its registered office in Austin, Texas, the United States of America, and a place of business at De Lavelstraat 1a, Hoogeveen (future address: Brugstraat 2, 8181 VH Heerde) -----
- -----

The power of attorney for the private limited company Orgelmakerij Gebrs. Reil B.V. is demonstrated by a deed of transfer of economic ownership, executed before the aforementioned civil-law notary Schurink on the fifteenth of June nineteen hundred and ninety-four.
- -----

The other powers of attorney are demonstrated by two private deeds which have been attached to this deed. The existence of the powers of attorney has been sufficiently demonstrated to me, deputy civil-law notary. -----

The party appearing under 1 declared that the private limited company Orgelmakerij Gebrs. Reil B.V. purchased the private limited company Rood Technology Nederland B.V. by virtue of the aforementioned deed of transfer of economic ownership, but did not receive ownership of the same. - -----
.-----

The commercial property at Brugstraat 2 in Heerde, seventeen areas and thirty centiares in size, recorded in the land register as Heerde Municipality, Section B, number 3088, which plot is partially encumbered with a restricted right as referred to in the Public Works (Removal of Impediments in Private Law) Act, for the benefit of the company limited by shares N.V. NUON Energie- Onderneming voor Gelderland, Friesland en Flevoland, having its registered office in Arnhem, for the purpose of laying, owning, maintenance, repair, and (where necessary) the replacement and removal of an underground high-voltage cable, as shown in ground plan number 4063-447, attached to the deed by means of which the aforementioned right was established. A copy of the aforementioned drawing is attached to this deed. --

The purchase price has been paid in full.

Ownership of the aforementioned immoveable property was - acquired by the private limited company Rood Testhuis B.V.;

- - inasmuch as derived from number 2484 through the registration at the land registry in Arnhem on the twenty-fifth of September nineteen hundred and seventy-nine, in part 5751, number 65 of the copy of the deed of transfer executed on the preceding twenty-fourth of September before civil-law notary Mr A. Bok, practicing at the time in Heerde;-----

inasmuch as derived from number 2484 through the registration at the aforementioned land registry on the sixteenth of June nineteen hundred and eighty-three, in part 6346, number 92 of the copy of the deed of transfer executed on the preceding fifteenth of June before the aforementioned civil-law notary Bok. ----- Contained in these deeds was a discharge for the purchase price, and a waiver to the right to demand the dissolution of the

agreement on the grounds of the provisions of Sections 1302 and 1303 of the Dutch Civil Code. -----

The name Rood Testhouse B.V. was changed on the twenty-first of January nineteen hundred and ninety-two to Rood Technology Nederland B.V. by deed executed before the aforementioned civil-law notary Schurink.-----
The party appearing under 1 declared that he had sold to the company under the laws of Texas, United States of America, Tempress Systems Inc., having its registered office in Austin, Texas, the United States of America, which the party appearing under 2 declared to have bought: -----

The right to delivery of the aforementioned immoveable

The parties appearing declared that this purchase agreement was entered into for a purchase price of five hundred and fifty-seven thousand guilders (NLS 557,500. The purchase price has been paid in full by the purchaser to the aforementioned civil-law notary Schurink.-----

In performance of the obligation to deliver, the party appearing under 1 declared on behalf of the private limited company Rood Technology Nederland B.V. that ownership of the aforementioned immoveable property be transferred to the company under the laws of the state of Texas, United States of America, Tempress Systems Inc., having its registered office in Austin, Texas, United States of America, for which the party appearing under 2 declared the acceptance of ownership of said immoveable property. -----

The parties have agreed that the share of the purchase price to be paid to the seller shall be retained by the civil-law notary acting as custodian of this deed until such a time as it is clear to the latter that the transfer has taken place without registrations which were not known at the time of execution of this deed. ----- This sum will be paid immediately to the seller after this time. -- The following stipulations have been laid down: -----

1. The property sold will be transferred in the condition it was in at the moment the purchase agreement was signed, with all rights and burdens. The seller is authorized to carry out the sale and delivery. The transfer of ownership is unconditional. The purchaser will use the property sold as a commercial property. -----

The seller is not aware of any grounds under private or public law why this should not be permitted. -----

2. The property sold is free of mortgage and attachment. The property sold is not encumbered with qualitative obligations, easements or other burdens and contractual stipulations other than those listed below.-----

3. A copy of this deed will be recorded in the public registers.

4. The purchaser can accept the property sold free from rental or other rights of enjoyment and completely vacant, as of today. ----

The risk is transferred to the purchaser today.

5. All property charges on the property sold shall be at the expense of the purchaser as of today. -----

Settlement has taken place. -----

6. No claims are permitted on the grounds of a difference in size.

7. The seller guarantees that it has not been notified by the state or utilities companies of any improvement or repair work which have not yet been carried out, or not yet carried out to acceptable standards. -

8. All claims which the seller can and will enforce in respect of the property sold against third parties, including builders, (sub)contractors, installers and suppliers are transferred to the purchaser. Inasmuch as these claims are not enforceable as qualitative rights as referred to in Section 251, Book 6 of the Dutch Civil Code, the seller shall cooperate in the transfer of these at the purchaser's first request. ----- The seller shall also hand over all proofs of guarantee relating to the property sold to the purchaser and to take all steps necessary to transfer these to the purchaser's name. --

9. The seller is not subject to any obligations vis-a-vis third parties by virtue of a priority right or right of option.

No legal proceedings, binding advice or arbitration are pending in respect of the property sold. -----

10. As far as is known by the seller, there are no facts which may indicate that the property sold contains any pollution which may be detrimental to the use by the purchaser as described above or which results in or may result in an obligation to decontaminate the property sold, or to take other measures.-----

11. As far as is known by the seller, the property also has no underground tanks for the storage of liquids. -----

12. The seller is not aware of any materials in the property which may contain asbestos, other than the asbestos cement wall cladding of which the purchaser is aware.

13. Inasmuch as this deed has not deviated therefrom, that which has been agreed between the parties before the execution of this deed in respect of the purchase agreement shall remain in effect.

14. The parties cannot dissolve this agreement nor order its dissolution. --

15. The costs of this deed, the registration fees and transfer tax, including the transfer tax on five hundred and fifty-seven thousand five hundred guilders (NLG 557,500) levied on previous acquisitions in the six months before this day are at the expense of purchaser.

16. The provision of Section 204c, Book 2 of the Dutch Civil Code does not apply. ---

17. All risks concerning the functioning of the systems are transferred to the purchaser. -----

18. The seller shall ensure closure of the boundary to the north of the building, at the boundary between the plots known as Heerde Municipality, Section B, numbers 3087 and -

19. The purchaser has applied for the required permission from the Municipality of Heerde in accordance with the Municipality of Heerde 1977 General Terms and Conditions of Sale for Building Sites. -----

20. a. For the benefit and to the detriment of the plots recorded in the land registry as Heerde Municipality, section B, numbers;3087 and 3088, the easement is established reciprocally whereby the communal wall on the boundary between the two plots be tolerated.-----

b. For the benefit of the plot sold by means of this deed, recorded in the land registry as Heerde Municipality, section B, number 3088 and to the detriment of the plot belonging to the seller recorded in the land registry as number 3087 of the same municipality and section, the following easement is established:

- - to tolerate and continue to tolerate the presence of the heat exchangers for the air-conditioning unit on the property sold and the plot belonging to the seller recorded in the land registry as Heerde Municipality, section B, number 3087. These heat exchangers belong to the property sold. -----
This easement lapses if these heat exchangers are moved or replaced.
- -----

- - that in the context of any laying of cables on the part of the purchaser, the purchaser may make use of the transformer on the seller's plot; such cable-laying must take place in the manner that causes the least inconvenience. All costs relating to the laying and connection of cables shall be at the purchaser's expense. Any cooperation provided by NUON shall be at the purchaser's risk. --

21. The partition wall between the property sold and the part of the building still owned by the seller will, in full consultation and at the instructions and expense of the purchaser, be modified to meet fire safety requirements as set or to be set by the authorized bodies.-----

In the event that these modifications affect the emergency exit and door of the property still owned by the seller, these shall also be at the purchaser's expense. -----

These modifications may not have any fundamental effect on the functionality of the on-site exit and emergency exit of the seller, on the understanding that the existing emergency exit door may, in consultation with the seller, be made slightly narrower than is currently the case, as long as the functionality is not affected. All modifications shall be fully at the purchaser's expense. -----

22. All goods currently present in the property sold are deemed to be included in the property sold. -----

23. Inasmuch as has not yet taken effect, this delivery is subject to the "1977 General Terms and Conditions of Sale for Building
These conditions were laid down in a deed executed before the aforementioned civil-law notary Bok on the eighteenth of October nineteen hundred and seventy-seven and registered in the aforementioned land registry on the nineteenth of October of that year, under Part 4997, Number 34. The party appearing under 1 declared that it imposed the provisions of Articles 9, 13, 15 through 20 and 22 through 30 of these General Terms and Conditions on the purchaser.-

The party appearing under 2 declared that it would bind the purchaser to fulfil these provisions.-

The party appearing under 1, acting in the interests of the Municipality of Heerde, declared the acceptance of the above on behalf of the municipality.
- -----

The purchaser declared that he had received a copy of the General Terms and Conditions of Sale.

The party appearing under 2 declared the acceptance of the aforementioned burdens and restrictions on behalf of the purchaser. The parties grant power of attorney to Mr Mannes Vlieger, bookkeeper, Mr Hendrik Jan Kamphuis, notary's clerk, Ms Grietje van den Brink, notarial assistant, Ms Diana Alia Liefers, notarial assistant and Ms Hendrika Wilhelmina van den Brink, notarial assistant, all residing in Heerde, and Ms Johanna Aarentina Witman, notarial assistant, residing in Vaassen, the Netherlands, both jointly and each separately, to waive mortgage rights on their behalf, inasmuch as these may be registered for the property sold encumbering persons other than the purchaser. --

For the implementation of this deed, the parties elect domicile at the office of the civil-law notary acting as custodian of this deed.

The identity of the parties appearing has been determined by means of the aforementioned documents intended for this purpose. --

The parties appearing are known to me, deputy civil-law notary. -- IN WITNESS WHEREOF the parties hereunto set their hands in Heerde, the Netherlands, on the date first hereinbefore written. -----

After a limited reading of the contents of this deed to the parties, the parties declared unanimously that they had taken note of the contents of this deed and did not require the deed to be read out in full.-----

Immediately following a limited reading, this deed was signed by the parties appearing and me, deputy civil-law notary, at sixteen hundred hours and thirty-five minutes. (signed): W.A. Reil; F. Pentinga; E. Feijen. --For the true copy

[signature]

The undersigned, Mr Eric Feijen, junior civil-law notary, residing in Heerde, as deputy for the civil-law notary practicing in that place Mr Johannes Willibrordus Jozef Maria Schurink, declares that the immovable property alienated by virtue of this deed within the meaning of the Municipalities (Preferential Rights) Act is not included in a designation by virtue of Sections 2 or 8 nor in a proposal by virtue of Section 6 of that act.

[signature]

OFFICES OF CIVIL--LAW NOTARY

J . W . J . M . SCHURINK

PRACTICING IN HEERDE

OWNERSHIP TITLE FOR

Tempress Systems Inc., having its registered office in Austin, Texas, the United States of America, and a place of business in Hoogeveen, the Netherlands.

OR

the commercial property at Brugstraat 2 in Heerde, the Netherlands.

Deed of 21 June 1996.

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the incorporation by reference in this Registration Statement of our report dated December 6, 1995 included in Amtech Systems Inc.'s Form 10-K for the year ended September 30, 1995 and to all references to our firm included in this Registration Statement.

ARTHUR ANDERSEN LLP

Phoenix, Arizona
July 30, 1996