

PROSPECTUS

350,000 Shares



Common Stock (\$.10 par value)

THESE SECURITIES INVOLVE A HIGH DEGREE OF RISK.

Prior to this offering, there has been no public market for the Common Stock of the Company. The offering price has been determined by negotiation between the Company and the Underwriters.

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

PRICE TO PUBLIC \$ ..... A SHARE

Table with 4 columns: Per Share, Total(1), Price to Public, Underwriting Discount(1), Proceeds to Company(2)

(1) In order to cover overallocments, if any, the Company has granted to the Underwriters an option to purchase up to an additional 26,250 shares of Common Stock at the Price to Public less the Underwriting Discount. Any profit realized upon the sale of overallocation shares may be considered additional underwriting compensation. Substantial additional underwriting compensation is described below.

(2) Before deducting expenses estimated at \$..... payable by the Company.

This offering involves:

(a) Special risks concerning the Company. See "High Risk Factors Involved In This Offering".

(b) Immediate substantial dilution in that the net tangible book value of the Common Stock after the offering will be substantially less than the Price to Public. See "Dilution".

(c) Additional underwriting compensation through the sale by the Company to Schneider, Bernet & Hickman, Inc. for \$175 of nontransferable warrants to purchase 17,500 shares of Common Stock at \$..... per share (120% of the Price to Public) from ..... 1973 to ..... 1977 and indemnification of the Underwriters. See "Underwriting".

The shares are offered by the several Underwriters named herein, subject to prior sale, when, as and if delivered to and accepted by such Underwriters, and subject to the approval of certain legal matters by counsel and certain other conditions.

Schneider, Bernet & Hickman, Inc.

....., 1972

A Registration Statement relating to these securities has been filed with the Securities and Exchange Commission but has not yet become effective. Information contained herein is subject to completion or amendment. 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.

No dealer, salesman or other person has been authorized to give any information or to make any representation not contained in this Prospectus in connection with the offering described herein; and, if given or made, such information or representation must not be relied upon as having been authorized by Mostek Corporation or any of the Underwriters. Neither the delivery of this Prospectus nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of Mostek Corporation since the date hereof. This Prospectus does not constitute an offer to sell or a solicitation of an offer to buy any of these securities in any jurisdiction in which such offer or solicitation may not lawfully be made.

Until ....., 1972 (90 days after the date of this Prospectus), all dealers effecting transactions in the registered securities, whether or not participating in this distribution, may be required to deliver a Prospectus. This is in addition to the obligation of dealers to deliver a Prospectus when acting as Underwriters and with respect to their unsold allotments or subscriptions.

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**IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE COMMON STOCK AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.**



## THE COMPANY

Mostek Corporation ("Mostek") designs, manufactures and sells various types of highly complex, miniature electronic circuits. These circuits are produced using Metal Oxide Semiconductor/Large Scale Integration ("MOS/LSI") technology. Mostek uses ion implantation in its manufacturing process to enhance the performance of its circuits. The circuits are an integrated system of electronic components which perform specialized logic and memory functions, including data storage, counting, timing and mathematical computations. They are used in a wide variety of commercial, industrial and military electronic equipment, including computer terminals, peripheral equipment, calculators, memory systems, display systems, musical instruments, measuring instruments, data communication equipment and business machines.

Mostek estimates that the end uses of its products sold during 1971 are represented by the following percentages of its net sales: computer terminals, peripheral equipment and memory systems—49%, calculators—45%, military systems—4%, and other—2%. During 1971 approximately 54% of Mostek's products were designed and manufactured to meet specific customer requirements while approximately 46% comprised a line of standard circuits.

Mostek was incorporated under the laws of the State of Delaware in March, 1969 and maintains its executive offices at 1400 Upfield Drive, Carrollton, Texas 75006. Telephone: (214) 242-1494.

### HIGH RISK FACTORS INVOLVED IN THIS OFFERING

In addition to the risks inherent in any new enterprise, prospective investors should consider, among other things, the following:

1. **No Assurance of Profitability.** Mostek had net income, after giving effect to tax loss carryforward, of \$225,198 (\$.23 per share) for the year ended December 31, 1971, its first profitable year, at which date it had an accumulated earnings deficit of \$843,608. No assurance can be given that Mostek will operate profitably in the future.

2. **Technological Obsolescence.** Mostek is engaged in a business subject to rapid technological change which can result in substantial product and process obsolescence. New technological developments could materially affect Mostek's ability to compete.

3. **Financial and Technological Superiority of Competitors.** The industry is highly competitive and includes companies that have substantially greater capital and technological resources which may enable them to finance research and development activities or absorb operating losses, and thereby obtain a decisive advantage over Mostek. Some potential and existing customers of Mostek already have, or may develop, internal capability for producing products similar to Mostek's.

4. **Price Competition.** Mostek's products and those of its competitors are frequently subject to rapid price reductions which may materially affect profitability. In order to meet competition Mostek may, in some instances, offer products for future delivery at prices below current production cost in anticipation of future cost reductions. If such cost reductions do not occur, the sales, if made, will result in losses which could be substantial.

5. **Variations in Yield and Unit Costs.** Mostek's manufacturing process is complex. Therefore, wide variations in the percentage of production output acceptable for sale can occur and, as a result, manufacturing costs and product availability may be materially and adversely affected.

6. **Product and Customer Dependency.** During 1971 approximately 43% of Mostek's sales were of one calculator circuit to a single customer located in Japan. During 1972 Mostek anticipates that approximately 50% of its sales will be of this and other calculator circuits to



several customers located in the United States and foreign countries. The loss of a major customer or the obsolescence of these products could have a materially adverse effect on Mostek's operations.

**7. Employment of Qualified Personnel.** The highly technical nature of Mostek's business requires the employment of qualified engineering and technical personnel. Attracting and retaining them can be difficult and uncertain. Mostek's business would be adversely affected if certain of its personnel were to cease employment and it was unable to obtain suitable replacements.

### Dilution

Upon completion of this offering an aggregate of 1,635,190 shares of Mostek Common Stock would be outstanding, assuming full conversion of the outstanding Convertible Debentures but without giving effect to the possible exercise of the Underwriters' option to purchase 26,250 shares to cover over-allotments. (See "Capitalization"). Assuming such conversion, 1,285,190 shares (78.6%) would be owned by the present Mostek stockholders, who will have paid \$4,365,730, or an average of \$3.40 per share; and 350,000 shares (21.4%) will be owned by the purchasers of the Common Stock offered hereby, who will have paid \$..... for such shares, or \$..... per share.

Assuming full conversion of the Convertible Debentures, the net tangible book value of the 1,285,190 shares of Mostek Common Stock at December 31, 1971 would be \$2.66 per share, with \$.87 attributable to the payment of the then outstanding 866,190 shares of Mostek Common Stock and \$1.79 attributable to conversion of the Convertible Debentures. Upon completion of this offering, assuming full conversion of the outstanding Convertible Debentures but without giving effect to the possible exercise of the Underwriters' option to purchase 26,250 shares to cover over-allotments, the net tangible book value per share of the Common Stock will be increased to \$....., with said increase of \$..... being attributable to the payment for the shares of the Common Stock offered hereby. Thus, the purchasers of the Mostek Common Stock offered hereby will sustain an immediate net tangible book value dilution of approximately \$..... per share and, assuming conversion of said Debentures, the net tangible book value of the shares held by the present Mostek stockholders will be increased by approximately \$..... per share.

### CAPITALIZATION

The following table sets forth the capitalization of Mostek at March 1, 1972, and as adjusted to give effect to the issuance and sale of the Common Stock being offered hereby:

	<u>Outstanding</u>	<u>As Adjusted</u>
3½% - 5⅔% Convertible Debentures due 1974 - 1979 (1)	\$2,660,000	\$2,660,000
Common Stock, \$.10 par value, (10,000,000 shares authorized) (2)	866,190 shs.	1,216,190 shs.

(1) Subject to certain limitations, these Debentures are convertible into 419,000 shares of Common Stock at an average price of \$6.35 per share and, except for \$335,000 principal amount of 5⅔% Debentures, became non-interest bearing after January 1, 1972. (See "Principal Stockholders" and Note 5 of Notes to Consolidated Financial Statements).

(2) Exclusive of 26,800 treasury shares; 17,500 shares reserved for issuance upon exercise of Common Stock Purchase Warrants to be issued to Schneider, Bernet & Hickman, Inc.; 26,250 shares reserved for issuance upon exercise of the Underwriters' over-allotment option; 249,860 shares reserved for issuance upon exercise of options granted or to be granted under Qualified Stock Option Plan; 2,000 shares reserved for issuance upon exercise of a non-qualified stock option; and 419,000 shares reserved for issuance upon conversion of Convertible Debentures. (See "Underwriting").

Reference is made to "Business-Property" and Note 7 of the Notes to Consolidated Financial Statements for information with respect to Mostek leases.



## STATEMENT OF CONSOLIDATED OPERATIONS

The following statement of consolidated operations of Mostek Corporation and subsidiary, so far as it relates to the year ended December 31, 1971, has been examined by Peat, Marwick, Mitchell & Co., independent certified public accountants and, so far as it relates to the period ended December 31, 1969 and the year ended December 31, 1970 has been examined by Saville, Dodgen & Company, independent certified public accountants, whose reports thereon appear elsewhere in this Prospectus. The statement should be read in conjunction with the other consolidated financial statements and related notes included elsewhere herein.

	<i>March 27, 1969 (date of incorporation) to December 31, 1969</i>	<i>Year ended December 31,</i>	
		<i>1970</i>	<i>1971</i>
Net sales (note a) .....	\$ —	950,677	3,634,409
Costs and expenses (note a):			
Cost of goods sold (note 2) .....	—	878,144	1,919,811
Research and development .....	200,419	289,181	469,992
Selling, general and administrative expenses (note b) .....	146,839	540,642	957,017
	347,258	1,707,967	3,346,820
Operating income (loss) .....	(347,258)	(757,290)	287,589
Other deductions (income):			
Interest on long-term debt .....	4,611	24,035	98,452
Interest income .....	(24,738)	(37,967)	(60,642)
Sundry - net .....	(1,450)	(233)	24,581
	(21,577)	(14,165)	62,391
Earnings (loss) before Federal income taxes and extraordinary credit .....	(325,681)	(743,125)	225,198
Federal income taxes (note 4) .....	—	—	102,217
Earnings (loss) before extraordinary credit .....	(325,681)	(743,125)	122,981
Extraordinary credit—reduction in Federal income taxes arising from utilization of net operating loss carryforward (note 4) .....	—	—	102,217
Net earnings (loss) .....	\$ (325,681)	(743,125)	225,198
Weighted average shares of common stock and common stock equivalents .....	468,559	767,118	975,169
Earnings (loss) per common and common equivalent share (note c):			
Before extraordinary credit .....	\$(.70)	(.97)	.13
Extraordinary credit .....	—	—	.10
Net earnings (loss) .....	\$(.70)	(.97)	.23

### NOTES:

(a) Net sales for the two years ended December 31, 1971 include sales to affiliates aggregating \$29,356 and \$134,440, respectively.

Costs and expenses include the following amounts charged by the Company's major stockholder and its affiliate for manufacturing and assembly facilities and services:

	March 27, 1969 (date of incorporation) to December 31, 1969	Year ended December 31,	
		1970	1971
Cost of goods sold .....	\$ —	769,339	985,418
Research and development .....	63,300	3,423	5,260
Selling, general and administrative expenses .....	—	34,533	119,283
	<u>\$ 63,300</u>	<u>807,295</u>	<u>1,109,961</u>

Sales are made to affiliates of the Company on the same basis as they are made to unrelated parties. In the opinion of management of the Company, the amounts paid to affiliates are fair and reasonable.

See caption "Corporate History—Certain Transactions" for additional information concerning the services performed by the Company's affiliates.

(b) Selling, general and administrative expenses for the two years ended December 31, 1971 include provisions for uncollectible accounts of \$157,483 and \$2,313, respectively. There was no provision for uncollectible accounts during the period ended December 31, 1969.

(c) Net loss per common share was computed based on the weighted average number of common shares outstanding during the period ended December 31, 1969 and the year ended December 31, 1970. Common stock equivalents (options) were not included in these computations since their effect was antidilutive. Earnings per common and common equivalent share for the year ended December 31, 1971 was computed based on the assumption that dilutive employee stock options were exercised and the proceeds were used to purchase common shares for the treasury at \$15 per share. Fully-diluted earnings per share are not presented since they would be antidilutive in each period.

(d) The Company has not paid or declared any dividends on its common stock since inception.

(e) Numerical note references are to notes to consolidated financial statements included elsewhere herein.

#### USE OF PROCEEDS

Net proceeds to Mostek from the sale of the 350,000 shares of its Common Stock being offered hereby are estimated to be \$..... after payment of expenses. It is anticipated that approximately \$2,700,000 of this amount will be expended on capital additions, including leasehold improvements and design, manufacturing and test equipment. Approximately \$1,950,000 will be used to finance inventories and receivables and the remainder will be added to Mostek's general funds. To the extent that the proceeds from the sale of the Common Stock offered hereby are not immediately utilized for the foregoing purposes, they will be held in high quality short-term investments.

The above figures are estimates and are subject to revision in light of the changing condition of the business in which Mostek is engaged. Rapid changes in technology, improvements in the production process, changed competitive conditions and shifts in requirements of customers may affect the allocation of proceeds.

#### DIVIDENDS

Mostek has paid no cash dividends on its Common Stock since organization and intends to follow a policy of retaining any earnings available for dividends on its Common Stock for use in connection with the development of its business. Accordingly, Mostek does not, at least for the foreseeable future, anticipate the payment of any cash dividends to holders of its Common Stock.



## BUSINESS

Mostek designs, manufactures and sells various types of MOS/LSI circuits, including custom designed and catalog products. The circuits are extraordinarily small and highly complex, being fabricated on a "chip" of silicon less than  $\frac{1}{4}$  inch square. Each circuit contains as many as several thousand electronic components such as transistors, resistors, capacitors and diodes. This miniature size and extreme density results in reduced product cost and improved functional reliability.

### Technology

MOS/LSI is one of the latest commercially available technologies in the evolution of electronics which began with the invention of the vacuum tube over 50 years ago. The development of computers during World War II demonstrated that vacuum tubes were unsuited for certain types of electronic equipment because of their excessive size, power consumption, cost and lack of reliability. In the early 1950s vacuum tubes began to be replaced in commercial applications by transistors, which were smaller, more reliable and consumed less power.

In 1959 the concept of fabricating more than one transistor into an electronic system within a single package led to the integrated circuit. In an integrated circuit a number of transistors and other electronic components are fabricated within a small block of semiconducting crystal such as silicon and connected together to perform specific electronic functions. The first integrated circuits were fabricated using bipolar technology. In the mid-1960s it became commercially practical to produce integrated circuits using Metal Oxide Semiconductor ("MOS") technology. Where speed is a secondary consideration, MOS technology can be used to fabricate complex logic systems more cost effectively than bipolar technology. Large Scale Integration ("LSI") is a term applied to integrated circuits which generally signifies that more than 100 logic gates are contained on a single chip. A logic gate is composed of several transistors connected together to perform specific functions.

Mostek combines ion implantation with conventional MOS/LSI technology to achieve bipolar compatibility and to develop new circuit capabilities. (See "Business—Manufacturing"). For example, Mostek believes it was the first to develop and sell a circuit containing the entire logic for a desk model or hand-held calculator on a single chip. MOS/LSI technology is also being used by Mostek in the fabrication of memory circuits that have in many instances replaced traditional magnetic core memories which are commonly used for data storage in both large and small computers and computer-related equipment. Replacement of magnetic cores by MOS/LSI has primarily occurred in small memory systems, where a cost advantage could be more readily obtained.

### Products

Mostek produces a number of custom products tailored to particular customers' specifications and catalog products available for sale to any customer. Since unit costs normally decline with increased volume, standard product output serves to reduce overall manufacturing costs. On the other hand, due to intense competition in standard MOS products there has been severe

erosion in selling prices and lower profit margins for these circuits. The level of competition for custom products tends to be less intense and prices more stable. The number of customers for custom products, however, is smaller and the loss of a customer for which a particular product was developed may have adverse consequences and leave the product unmarketable.

During 1971 custom and standard products amounted to 54% and 46%, respectively, of Mostek's total sales. The selling prices of Mostek's circuits generally range from \$2 to \$50 each.

**Standard Products.** Mostek's standard products include memory circuits and complex digital circuits designed for specific applications. It produces three types of memory circuits: random access memories ("RAMs"), read only memories ("ROMs") and shift registers. Uses for these circuits include computers and computer terminals, peripherals, data communication equipment, cash registers, calculators, radar equipment and other electronic equipment.

RAMs store digital information temporarily so that it is readily accessible in a short period of time. The data can be changed at will by the user. RAMs constitute a basic data storage element, supplanting to an increasing extent magnetic core memories in main-frame computers. Mostek manufactures and sells five different RAMs—three 256 bit static RAMs and two 1024 bit dynamic RAMs.

ROMs permanently store information so that it can be used repeatedly. The information is programmed in the ROM during its design phase and cannot be altered. Any digital information, such as tables of data, characters for electronic displays or programs of information can be stored and reached with a single command. Mostek makes several ROMs—a 2560 bit ROM, a 4096 bit ROM and three 2240 bit ROMs.

Shift registers store data serially with the data being available upon multiple commands. They are used in products where fast access is not paramount. Mostek produces 256 bit dynamic shift registers, 128 bit static shift registers and 320 bit dynamic shift registers.

Mostek also manufactures several non-memory circuits for use in electronic measuring instruments and calculator circuits suitable for use in hand-held, table top or printing calculators.

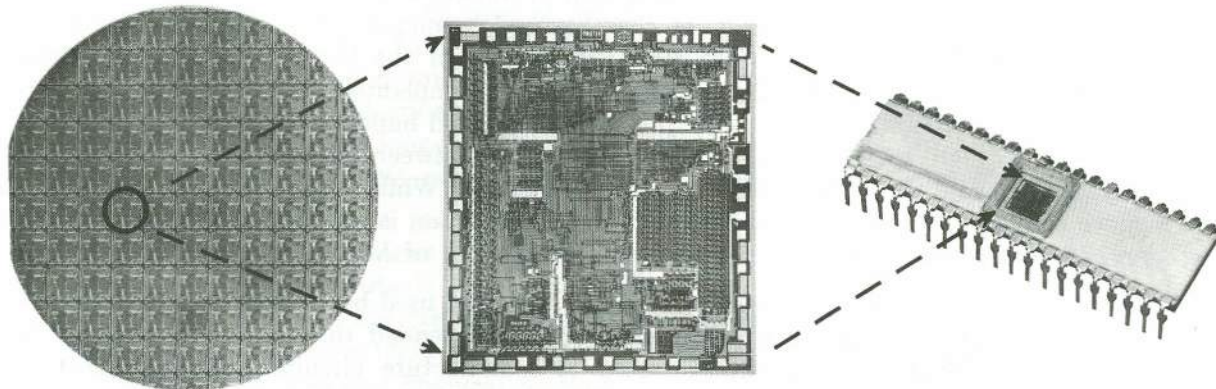
**Custom Products.** Mostek produces MOS/LSI circuits designed to customer specifications and supplied exclusively to that customer. In many instances the development costs of these products are borne by the customer. Among the custom products Mostek has developed are calculator circuits and sets of calculator circuits. For example, Mostek has developed the entire circuitry for a hand-held battery-operated computing instrument which performs arithmetic, trigonometric and logarithmic functions. Mostek has also developed custom circuits for use in electronic organs, a circuit used in an anti-submarine detection mechanism, a digital thermometer circuit, a digital voltmeter circuit, and a "modem" circuit for data communications.

Several circuits originally developed by Mostek as custom circuits are now marketed as standard products on a non-exclusive basis. Generally, however, custom circuits remain available exclusively to the original customer.



## Manufacturing

Development of MOS/LSI circuits by Mostek begins with the creation of a composite drawing of the circuit approximately 500 times final size. This layout is then separated into circuit layers which are photographically reduced to images the actual size of the circuit. These images are then duplicated on glass tooling plates called photo masks, which are approximately three inches square.



**Figure 1**  
*Wafer — actual size*

**Figure 2**  
*Chip — 10 times  
actual size*

**Figure 3**  
*Chip in a package —  
actual size*

Each mask is then placed over a slice of silicon called a “wafer” (see Figure 1 above), two or more inches in diameter and up to 16/1000 inch thick, which has been coated with a light sensitive emulsion. Then high intensity light is projected through the mask, hardening the emulsion in the areas exposed to light so that the image on the mask is transferred to the wafer after the emulsion is developed. The wafer is then washed with an acid etch that prepares the unhardened areas for treatment with certain chemical impurities at high temperatures. These impurities give the silicon the properties necessary to form electronic components. Normally five or six masking processes take place in a prescribed sequence with each masking stage defining a portion of the circuit system. At the last stage a thin layer of aluminum is deposited over the wafer and selectively etched leaving a pattern of wires connecting the circuit components. Many wafers are produced through the use of one set of masks.

Upon completion of wafer processing each wafer contains up to 400 identical MOS/LSI circuits. The wafers are then cut into chips up to  $\frac{1}{4}$  inch square and up to 8/1000 inch thick (see Figure 2 above) containing the individual circuit. Each chip is mounted into a small ceramic and metal package to facilitate interconnection with other components (see Figure 3 above). The package is hermetically sealed to protect the chip from damage or contamination, tested and readied for shipment. After development of the photo mask the production process on established products takes approximately eight to twelve weeks.

Initial design of the circuit is carried out in Carrollton, Texas. Wafer processing is performed in Worcester, Massachusetts. The processed wafers are shipped to the Carrollton plant



for testing and then sent to contractors located in Mexico and the Far East where they are separated into chips and packaged. The packaged chips are then subjected to final testing at the Carrollton plant prior to shipment. Mostek is currently in the process of establishing another wafer processing facility in Carrollton. (See "Use of Proceeds" and "Business—Property"). In order to meet anticipated production requirements, it is expected that some of Mostek's circuits will be manufactured by a contractor in accordance with Mostek's specifications.

**Ion Implantation.** Ion implantation is a step in Mostek's manufacturing process whereby numerous wafers are placed in a vacuum chamber and bombarded with selected atoms by a low voltage linear accelerator. As a result, the properties of the circuits are altered allowing the smaller output voltages of bipolar circuits to drive ion-implanted MOS/LSI circuitry. Since bipolar integrated circuits continue to be widely used as small building blocks of large electronic systems and in high speed applications, compatibility between bipolar and MOS circuitry is important to avoid the extra cost of separate interfaces. While other processes can be used to achieve compatibility, Mostek believes that ion implantation is among the simplest and most economical processes available today for volume production of MOS/LSI circuits.

Implantation is a flexible process tool which has been used by Mostek to develop circuits with features other than bipolar compatibility. Mostek extended the use of ion implantation by utilizing more than one implantation step to manufacture circuits containing both enhancement and depletion mode transistors on the same chip. As a result Mostek's circuits can be designed to exhibit increased speeds, lower power requirements and a much wider tolerance to voltage supply variations. Circuits implanted more than once are used by Mostek for battery-operated portable equipment such as hand-held calculators, computing instruments and measuring equipment, including voltmeters, frequency counters and digital thermometers.

**Quality Control.** Due to the extremely small size and precise tolerances involved in the production of its circuits, Mostek's manufacturing process must be carried on in controlled environments in which temperatures are carefully maintained and the air is filtered to prevent contamination. During the manufacturing process several visual inspections and electrical tests are performed, each of which may result in the discard of some circuits. It is not uncommon for less than 10% of the chips started in wafer form to be accepted for sale. A substantial departure from the production standard at one or more of the production steps can result in wide variations in yield which is a critical factor in the profitability of Mostek's operations. Virtually all of the test equipment used by Mostek is designed by its own engineers because suitable equipment is not otherwise economically available.

**Raw Materials.** Raw materials used by Mostek are available from two or more sources. Mostek believes that its present suppliers, together with others available, constitute a sufficient source of raw materials to satisfy its foreseeable needs. There have not been any delays in delivery of products due to raw material shortages.

### **Marketing**

Domestic sales of Mostek's products are made through four salaried salesmen and eight independent sales representatives located throughout the United States. In addition, Sprague



Electric Company ("Sprague") salesmen in five of its offices market Mostek's products in selected areas of the United States under a sales representative agreement. Sales representatives are paid on a commission basis and are prohibited from selling competing lines. Mostek also utilizes a network of eight distributors in 43 locations throughout the United States who purchase a limited inventory of products for resale and generally stock competing lines. Foreign sales are made in Europe by a salaried salesman with offices in Stuttgart, West Germany, and by sales representatives and distributors in Western Europe and England. Mostek also has a distributor and sales representative responsible for the Japanese and Far Eastern markets.

At March 10, 1972 Mostek's backlog of orders released for production and scheduled for delivery during 1972 amounted to approximately \$3,400,000 representing orders from approximately 50 customers, of which approximately 65% were orders from five customers. Comparative figures at similar dates in 1971 are not available. The amount of this backlog is not necessarily indicative of intermediate or long-term trends in Mostek's business. In addition, many of the orders for Mostek's products could be cancelled or their delivery dates extended without penalty.

During 1971 Mostek had sales to over 250 customers, of which approximately 47% were made to customers located outside the United States. No one customer accounted for more than 10% of total sales, except Nippon Calculating Machine Corp., a Japanese company, to which 43% of total sales were made. The loss of this customer could have a materially adverse effect on Mostek's business and financial position.

### **Research, Development and Engineering**

The technology involved in the manufacture of Mostek's products is complex and subject to constant change. Mostek is committed to a program of applied research and development oriented toward improving its existing manufacturing capabilities and developing new techniques and products. This program is carried on by approximately 15 engineers and supporting personnel. While the management of Mostek believes that its program of research and development will be sufficient to enable it to respond to the rapid technological changes that occur in the industry, there can be no assurance that this program will enable it to maintain its competitive position.

Prior to 1969 Sprague developed an ion implantation technique which was adapted by Mostek to the manufacture of MOS/LSI circuits on a commercial basis. (See "Business—Manufacturing"). Except for the early stages of Mostek's development it has not relied to a substantial degree on Sprague's research capabilities and does not expect to rely to a material extent on its research personnel and facilities in the future.

During 1971 Mostek expended approximately \$470,000 on research, development and engineering. New product development costs are in some cases borne by Mostek's customers; during 1971 approximately \$150,000 of these costs were paid by them. Expenditures in connection with Mostek's research, development and engineering activities are charged to operations as incurred.

### **Patents and Licenses**

Mostek has no patents at the present time. It has certain patent applications pending, but no assurance can be given that these will result in the grant of patents. Mostek does not an-



ticipate that such patents, if granted, would significantly improve its competitive position. Mostek has been notified that it may be infringing on patents issued to others. These claims have been referred to counsel and are in various stages of evaluation and negotiation. If it appears necessary or desirable, Mostek may seek to be licensed by these claimants. No assurance can be given that such licenses, if sought, can be obtained on satisfactory terms; however, Mostek management does not believe that any existing patent infringement claim will constitute a material impediment to its activities. Mostek has a cross-license agreement with Sprague pursuant to which they are each licensed to use the other's patents and technical know-how.

### **Competition**

Mostek is engaged in a highly competitive business. Companies of all sizes, including some with substantially larger capital and resources, are engaged in the semiconductor business and compete with Mostek. In the sale of its memory circuits for computers Mostek also competes with producers of magnetic cores. Mostek's competition now comes from domestic manufacturers; however, foreign producers and certain other domestic manufacturers, some of whom are now Mostek customers, have acquired, or are seeking to acquire, the know-how to produce competitive products.

The electronics industry is characterized by rapid technological change and substantial price reductions. Accordingly, Mostek's ability to compete is dependent upon constant improvement of its products and manufacturing processes and upon the development of new products and processing techniques. The barriers to market entry are not considered to be formidable, but the failure rate of companies in the semiconductor industry has been high and has included some large companies.

### **Property**

Mostek's principal executive offices, as well as its facilities for product design and testing and a limited amount of assembly work, are located in Carrollton, Texas in a building which it leases at a monthly rental of \$2,925. The building contains 22,500 square feet of floor space, of which approximately 8,000 square feet is devoted to office use and the remainder is used for design, testing and assembly. In addition, Mostek leases approximately 6,500 square feet, which is used for wafer processing, in a Sprague plant at Worcester, Massachusetts under a lease expiring December 31, 1976 which can be terminated by Mostek after December 31, 1973 and by Sprague after December 31, 1974. The rent is \$79,000 per year plus additional amounts for rental of equipment and administrative services. (See "Corporate History—Certain Transactions"). Mostek is in the process of moving its principal executive offices, as well as its facilities for product design, testing and a limited amount of assembly work to a larger facility located in Carrollton, Texas.

Accordingly, Mostek has terminated the lease on its Carrollton, Texas plant effective June 8, 1972 and leased a new building containing 120,000 square feet. The primary term of this new lease extends until March 31, 1975 at an average annual rental of \$140,000. The lease may be renewed for successive terms of two, three and five years at annual rentals of \$192,000, \$204,000 and



\$222,000, respectively. In addition, Mostek has an option while the lease is in effect to purchase the building at any time until 1985 at a price of \$1,650,000. Approximately 67,000 square feet of this new plant will be used by Mostek for the establishment of an additional wafer processing facility as well as for all other activity now carried on in Carrollton. It is expected that wafer processing will begin in this facility in early 1973. Space not initially utilized for the foregoing purposes will be used, as needed, for additional manufacturing capacity and general corporate purposes. Mostek has a sales office in Stuttgart, West Germany which is occupied under a short-term lease.

### **Economic Stabilization Act of 1970**

Certain wage and price guidelines were established on November 14, 1971 pursuant to the Economic Stabilization Act of 1970. The Company does not believe that these measures will have any material adverse effect on its financial position or results of operations.

### **MANAGEMENT**

The directors and executive officers of Mostek are as follows:

<u>Name</u>	<u>Title/Principal Occupation</u>
L. J. Sevin	Chairman of the Board of Directors, President and Chief Executive Officer
Charles V. Prothro	Vice President—Finance, Secretary- Treasurer and Director
Harvey B. Cash	Vice President—Marketing
James E. Wilkinson, Jr.	Vice President—Manufacturing
Robert B. Palmer	Vice President—Worcester Operations
Bruce R. Carlson	Director
Arthur G. Connolly	Director
Robert Ted Enloe III	Director
Robert E. Kelley	Director
M. D. Sampels	Director

Mr. Sevin (age 41), a founder of Mostek, was its Vice President until October, 1970 when he became President and Chief Executive Officer. In August, 1971 he also became Chairman of the Board. Prior to joining Mostek he had been employed for more than three years in various engineering positions by Texas Instruments Incorporated and had been manager of its MOS engineering center since August, 1968.

Mr. Prothro (age 29) had been employed in various production planning and marketing positions by Texas Instruments Incorporated from 1966 until joining Mostek in June, 1969. He was elected a Vice President of Mostek in October, 1970.

Mr. Cash (age 33) had been employed in various sales and marketing positions, including MOS Marketing Manager, by Texas Instruments Incorporated for more than three years prior to joining Mostek in June, 1969. He was elected a Vice President in October, 1970.

Mr. Wilkinson (age 31) had been employed by Raytheon Corporation as a Project Manager in connection with its "Sparrow" Missile Program from 1966 until he joined Mostek in October, 1969. He was elected a Vice President in October, 1970.

Mr. Palmer (age 31) had been employed in various development, engineering and manufacturing positions with Texas Instruments Incorporated from 1967 until he joined Mostek in June, 1969. He was elected a Vice President in December, 1971.



Mr. Carlson is President and a director of Sprague Electric Company.

Mr. Connolly is a partner in the law firm of Connolly, Bove & Lodge in Wilmington, Delaware and a director of Sprague Electric Company.

Mr. Enloe is Executive Vice President of Lomas & Nettleton Financial Corporation, Dallas, Texas.

Mr. Kelley is a Senior Vice President and director of Sprague Electric Company.

Mr. Sampels is a partner in the law firm of Worsham, Forsythe & Sampels in Dallas, Texas.

### **Remuneration**

No person received direct remuneration aggregating in excess of \$30,000 as an officer or director of Mostek during the year ended December 31, 1971. All officers and directors of Mostek as a group received remuneration during such year which aggregated \$123,045.

### **Employees**

As of March 1, 1972, Mostek had 261 full-time employees, of which 94 were hourly employees of Sprague employed under contract by Mostek. Approximately 32 of these employees were involved in design, research and product development, 189 in manufacturing and testing, 16 in marketing and 24 in administrative and executive activities.

None of these employees is covered by a collective bargaining agreement. Mostek has experienced no work stoppage attributable to labor disputes and believes that its relations with its employees are excellent.

## **OPTIONS**

In June, 1969 Mostek adopted a Qualified Stock Option Plan (the "Plan") providing for the granting of stock options intended to be "qualified stock options" (as defined in Section 422 of the Internal Revenue Code of 1954, as amended) to key employees, other than non-employee directors, designated by the Stock Option Committee of the Mostek Board of Directors. The Plan provides that a total of 250,000 shares of Common Stock (subject to adjustment in certain events) may be issued to Mostek employees pursuant to options granted under the Plan. Options may be granted at any time and additional options may be granted with respect to any shares as to which options theretofore granted have lapsed. Unless sooner terminated by the Board of Directors, the Plan will terminate in June, 1979.

Each option expires not more than five years from the date of grant, and must be at a price at least equal to the fair market value of Mostek Common Stock on the date of grant. The Stock Option Committee determines the option price and period at the time each option is granted. Options granted under the Plan are not transferable or assignable other than by will or by the laws of descent and distribution. Shares purchased upon the exercise of options must be



acquired for investment and not for distribution. The options may be exercised in equal amounts over the five year period following the grant on a cumulative basis.

The following table contains information with respect to options granted under the Plan, covering a total of 134,360 shares of Mostek Common Stock, which were outstanding on March 1, 1972:

<u>Number of Shares</u>	<u>Purchase Price Per Share</u>	<u>Expiration Dates</u>
14,100	\$ 2.50	1974
99,110	2.50 - 5.00	1975
21,150	10.00	1976 - 77

As of March 1, 1972, officers and directors of Mostek held options to purchase an aggregate of 25,000 shares of Mostek Common Stock at purchase prices ranging from \$2.50 to \$5.00 per share. None of these options have been exercised. They expire at various times during 1974 and 1975.

On May 26, 1971 James K. Imai, President of Imai Marketing Associates, Inc., an independent Mostek sales representative, was granted a non-qualified option to purchase 2,000 shares of Mostek Common Stock at the price of \$2.50 per share. The option expires in May, 1976, and is exercisable with respect to 20% of the shares covered each year on a cumulative basis.

### PRINCIPAL STOCKHOLDERS

The following table sets forth certain information as to the shares of Mostek Common Stock owned beneficially and of record as of March 1, 1972 by each person who, to the knowledge of Mostek, is the record or beneficial owner of more than 10% of the outstanding Mostek Common Stock and all Mostek directors and officers as a group.

<u>Name and Address</u>	<u>Type of Ownership</u>	<u>Shares Owned</u>	<u>Percent of Shares Outstanding</u>
Sprague Electric Company Marshall Street North Adams, Massachusetts	Record and Beneficial	433,000(1)	49.98%
New Business Resources— Venture Capital Partnership, Ltd. 4300 Sigma Road Dallas, Texas	Record and Beneficial	238,900	27.58%
Directors and Officers as a Group (10 persons)	Record and Beneficial	119,000	13.73%

(1) Sprague also owns an aggregate of \$2,660,000 principal amount of 3½%-5⅔% Convertible Debentures (the "Debentures") due 1974-1979, which are convertible into 419,000

shares of Common Stock at prices ranging from \$2.50 to \$10.00 per share. The Debentures may generally be converted by either Sprague or Mostek, except they have agreed to suspend any conversion until after completion of this offering and have further agreed that in no event will either of them convert said Debentures without the consent of the other, if afterward Sprague would own more than 48% of the then outstanding Common Stock of Mostek.

Sprague, New Business Resources—Venture Capital Partnership, Ltd. (“NBR”) and L. J. Sevin may be deemed “parents” of Mostek, as that term is defined in the Rules and Regulations of the Securities and Exchange Commission. (See “Corporate History—Certain Transactions”).

Pursuant to a Stockholders’ Agreement dated December 3, 1971, Sprague, NBR and all other present Mostek stockholders have agreed to vote their Common Stock and use their best efforts to elect a seven man Board of Directors of Mostek, three of such members to be designated by the President of Mostek (not more than two of whom may be employees of Mostek), three of such directors to be designated by Sprague (not more than two of whom may be employees of Sprague) and one director to be designated by the two non-employee directors. Upon Sprague’s ownership of Mostek Common Stock decreasing below 44% of the outstanding Common Stock (inclusive of shares issuable upon Debenture conversion) the President of Mostek may designate four of such seven directors and Sprague two members of such board. Under Delaware law the term of this voting agreement may not exceed ten years unless extended by the parties. Under the terms of said Agreement none of the present stockholders may sell or otherwise dispose of their Mostek stock for at least one year following the date of this Prospectus.

## CAPITAL STOCK

The outstanding shares of Common Stock are, and the shares of Common Stock offered by this Prospectus will be, fully paid and nonassessable. Common Stock holders are entitled to one vote for each share held of record on all matters voted on by stockholders and on liquidation are entitled to share ratably in the assets available for distribution. Holders of the Common Stock have no preemptive, subscription, redemption or conversion rights. The shares of Common Stock do not have cumulative voting rights, which means that the holders of in excess of 50% of the shares voting for the election of directors can elect all of the directors if they choose to do so, and in such event the holders of the remaining shares voting for the election of directors will not be able to elect any person to the Board of Directors. The voting rights of certain shares of the Mostek Common Stock with respect to the election of directors are limited by a Stockholders’ Agreement. (See “Principal Stockholders”).

Mostek intends to furnish its stockholders with annual reports containing financial statements certified by independent certified public accountants, quarterly reports containing unaudited results of operations, and such other reports as may from time to time be authorized by its Board of Directors.

The Transfer Agent and Registrar for the Mostek Common Stock is the First National Bank in Dallas.



## CORPORATE HISTORY—CERTAIN TRANSACTIONS

Mostek was founded in March, 1969 by Messrs. L. J. Sevin, Louay E. Sharif and Richard L. Petritz. Information is set forth below relating to purchases of Common Stock, all of which were for cash, since the organization of Mostek by these and other persons.

<u>Name</u>	<u>Number of Shares Acquired</u>	<u>Average Price Paid Per Share</u>
L. J. Sevin and trusts for the benefit of of his family	58,000	\$ .43
Louay E. Sharif and trusts for the benefit of his family (1)	58,000	.43
Richard L. Petritz (2)	60,000	.50
NBR	168,900	2.78
Sprague (3)	433,000	2.28
Richard J. Hanschen (2)	10,000	2.50
Other Officers and Directors	61,000	1.36

(1) Mr. Sharif's employment with Mostek terminated in August, 1971. He subsequently sold 10,000 shares of this stock to Mostek at the price of \$.10 per share, 10,000 shares to Mostek at the price of \$5.30 per share and 9,000 shares to certain employees of Mostek who are neither officers nor directors at the price of \$5.30 per share.

(2) The shares were subsequently transferred to NBR.

(3) In addition from September 22, 1969 to July 7, 1971 Sprague purchased an aggregate of \$2,660,000 principal amount of Mostek debentures convertible into 419,000 shares of Common Stock at an average conversion price of \$6.35 per share.

Mostek has been closely associated with Sprague since its inception. Under a cross-license agreement Mostek paid Sprague royalties aggregating \$43,935 for the period June, 1969 to January 3, 1972 when a royalty free cross-license agreement was entered into. (See "Business—Patents and Licenses").

In June, 1969 Mostek contracted with Sprague to lease a portion of Sprague's Worcester, Massachusetts plant for use in connection with wafer processing. Under this agreement Mostek used certain Sprague machinery and equipment in the plant in return for payment of the depreciation costs of the equipment; utilized Sprague employees under supervision of Mostek personnel in return for the payment of their wages and fringe benefits plus an additional 10% to cover administration costs; purchased certain raw materials from Sprague at cost; paid Sprague a sales commission equal to 4% of sales; and paid Sprague for various miscellaneous corporate services rendered in the Worcester plant. The total of these charges was \$1,772,905 for the period from June, 1969 through December 31, 1971. In January, 1972 Mostek entered into a new lease agreement with Sprague with respect to the Worcester plant under which Sprague supplies Mostek with certain administrative services relating to personnel, data processing, manufacturing, maintenance and other services at specified rates which total approximately \$60,000 annually. Mostek also leases equipment used in connection with the manufacturing carried on in Worcester at an annual rate of approximately \$21,000. In addition, Sprague has agreed to furnish labor and material upon request by Mostek at specified rates.

Wafer separation and packaging of a majority of the silicon chips produced by Mostek is done in Juarez, Mexico by a subsidiary of Sprague which receives a fixed charge for each package assembled to Mostek's specifications. From January, 1971 through December 31, 1971 Mostek paid a total of \$163,716 for these assembly services. From January, 1970 to March, 1971 this work was done by Sprague in Worcester for which Sprague received \$124,262 for services and \$293,646 for materials.

During 1969, 1971 and for the first two months of 1972 Mostek invested in \$50,000, \$5,535,000 and \$1,075,000, respectively, of short term debt obligations of Lomas & Nettleton Financial Corporation. As of March 1, 1972 it held \$425,000 of short term debt obligations of Lomas & Nettleton Financial Corporation. Not more than \$1,475,000 of such debt obligations was held at any one time. The transactions were carried on in the open market in the ordinary course of Mostek's business. Mr. Enloe, a director of Mostek, is the Executive Vice President of Lomas & Nettleton Financial Corporation.

During the years 1970 and 1971 Mostek paid or accrued to the firm of Worsham, Forsythe & Sampels, in which M. D. Sampels, a Mostek director, is a partner, legal fees in the amounts of \$19,975 and \$46,000, respectively.

**UNDERWRITING**

The Underwriters named below, through their Representative, Schneider, Bernet & Hickman, Inc., have severally agreed, subject to the terms and conditions contained in the Underwriting Agreement, to purchase the number of shares of Common Stock set forth opposite their respective names:

<u>Name</u>	<u>Address</u>	<u>Number of Shares to be Purchased</u>
Schneider, Bernet & Hickman, Inc.	3200 First National Bank Bldg. Dallas, Texas 75202	

Total ..... 350,000



The nature of the obligations of the Underwriters is such that if any of the shares offered hereby are purchased, all of them must be purchased.

Mostek is advised by Schneider, Bernet & Hickman, Inc., as Representative of the several Underwriters, that the Underwriters propose to offer the shares subject to prior sale and the right to reject any offer in whole or in part, when, as and if delivered to and accepted by the Underwriters, in part directly to the retail purchasers at the initial public offering price set forth on the cover page of this Prospectus and in part to certain dealers at such price less a concession of \$ ..... per share; that the Underwriters may allow and such dealers may reallocate on sales to certain other dealers a discount not exceeding \$ ..... per share; and that, after the initial public offering of the shares offered by this Prospectus, the Representative is authorized to change the public offering price and concessions and discounts to dealers.

Pursuant to the Underwriting Agreement, Mostek has agreed to sell to Schneider, Bernet & Hickman, Inc. for \$175 warrants to purchase 17,500 shares of Mostek's Common Stock at 120% of the public offering price. The warrants are not exercisable for one year and expire five years from the date of this Prospectus. The warrants are nontransferable except to a successor in merger or consolidation, or to a purchaser of substantially all of the assets, or to stockholders in the event of a dissolution, as the case may be, of Schneider, Bernet & Hickman, Inc. The warrants provide for adjustments in the exercise price and/or the number of shares purchasable in the event of stock splits, stock dividends or similar occurrences involving the Common Stock. For the life of the warrants the holder thereof is given, at nominal cost, the opportunity to profit from a rise in the market price of the Common Stock with a resulting dilution in the interest of other stockholders. Furthermore, so long as the warrants are outstanding, the terms on which Mostek could obtain additional capital may be adversely affected. The holder of such warrants might be expected to exercise them at a time when Mostek would, in all likelihood, be able to obtain equity capital, if it needed capital, by the sale of a new offering on terms more favorable than those provided by the warrant.

Mostek has granted to the Underwriters, solely for the purpose of covering possible overallocments, the right (expiring 30 days after the date of this Prospectus) to purchase, at the public offering price, less the underwriting discount, up to 26,250 additional shares of Common Stock.

#### LEGAL MATTERS

The legality of the Common Stock offered hereby will be passed upon by Messrs. Worsham, Forsythe & Sampels, 2520 Republic Bank Tower, Dallas, Texas 75201, counsel for Mostek, and by Messrs. Ritchie, Ritchie & Crosland, 1100 Republic Bank Building, Dallas, Texas 75201, counsel for the Underwriters. M. D. Sampels, a director of Mostek, is a partner in the firm of Worsham, Forsythe & Sampels.

#### EXPERTS

The consolidated financial statements and schedules included herein and elsewhere in the Registration Statement have been included herein and in the Registration Statement in reliance upon the reports of Peat, Marwick, Mitchell & Co., independent certified public accountants, so far as they relate to the year ended December 31, 1971 and upon the reports of Saville,