

INDUSTRIAL NUCLEONICS CORPORATION

EIGHTH ANNUAL REPORT

FOR THE YEAR ENDED APRIL 30, 1958

INDUSTRIAL NUCLEONICS CORPORATION

COLUMBUS, OHIO

DIRECTORS:

Edward McC. Blair

Wilbert E. Chope

Henry R. Chope

Marshall Field, Jr.

George B. Foster

George B. Young

OFFICERS:

Wilbert E. Chope ..... President

Henry R. Chope ..... Executive Vice-President

George B. Foster ..... Vice-President and Technical  
Director and Secretary

Robert E. Swenson ..... General Manager and Treasurer

Francis E. O'Riordan ..... Assistant Treasurer

To Our Shareholders:

### THE PAST YEAR

The year ended April 30, 1958, was the eighth year of operation for Industrial Nucleonics Corporation. Sales were \$4,915,551, a slight increase over sales of the preceding year. The net profit after taxes was \$159,402, or \$1.62 per share.

During the year action was directed towards three major objectives: 1) increasing the potential market by creating new and different products, 2) entering new industries which are currently investing large amounts in measurement and controls, and 3) increasing our territorial sales coverage.

Based on the "pent-up" demands for goods created by the war years and the rapid population growth following World War II, there was continuing plant expansion in many basic industries. Emphasis was on maximum production, and this was reflected by expenditures for new production machinery and plants. During late 1957 and early 1958 certain basic industries found their output exceeding the effective demand. The economic readjustments in the latter period caused initial cutbacks in purchases of many capital goods. Industrial Nucleonics' larger systems fall within the categories of "capital goods," as evidenced by their average prices which range from \$15,000 to \$50,000 per installation. The readjustment had some effect on our sale of large systems.

It may be remembered that in a similar period of readjustment in 1954, Industrial Nucleonics' business increased sharply as emphasis shifted from gross capital expenditures to cost reduction. Although in future years our expanding population will require increasing goods and services, the emphasis in basic industries now appears to be on highest quality, greatest productivity, and lowest cost of products. Industrial Nucleonics' systems have a favorable effect on each of these factors.

Many of Industrial Nucleonics' newer products are lower priced units and, therefore, do not require capital expenditure approvals. It is anticipated that routine, repetitive sales of these smaller items will tend to round out some of the peaks and valleys normally found in the marketing of capital equipment.

At the end of fiscal year 1957-58, the average number of employees at Industrial Nucleonics remained about the same as the previous year.

Again in 1957-58, Industrial Nucleonics received outstanding national recognition. In early 1958 the company became the first ever to receive the United States Chamber of Commerce Award twice in succession for "employee communications and economic understanding." In addition, a considerable number of articles appeared in business and trade publications describing Industrial Nucleonics' "significant firsts" in process controls and advanced measurements.

Significant new industries entered during the year were chemical, petroleum, foods, and mining, in addition to our "bread and butter" industries of rubber, paper, paper converting, metals, and plastics.

### NEW PRODUCTS AND POTENTIAL

Industrial automation starts with accurate measurements of important process and business information. Accordingly, a large amount of development and engineering effort this year was directed towards new measuring devices. Industrial Nucleonics' total expenditures for research, development, and engineering during the year were \$757,000. New measuring products introduced were:

1. Density Gauges
2. Can Fill Measurement and Controls
3. Can Fill Measurement and Rejection Systems
4. Missing Filter Tip Detector for Cigarettes
5. Tank and Bin Level Measurement and Control Devices
6. Pipewall Thickness Gauges

With the addition of these products Industrial Nucleonics' total potential is substantially greater than it had previously been. Among some of the new applications for which purchase orders have been received are: density measurement of fruit juices and tomato paste, level measurement of beer in cans, control of cleaning processes in coal mining, control of polymerization of various chemical products, measurement of meat content in dog food, level control in coke drums for oil refineries, and control of ore charging in electrical reduction furnaces.

The nature of our business has shifted in recent years from nucleonics products employing isotope radiation materials to advanced electronics systems for automatic control. It is expected that in the future a large percentage of Industrial Nucleonics' business will come from products and services not based on nucleonics devices. For example, a device developed and sold for detecting missing filter tips in cigarettes utilizes optical and light principles for its measurement. Other advanced physical and electronic principles are being applied for accurate measurements.

## PRODUCT EXPANSION AND IMPROVEMENT

As Industrial Nucleonics' measurement, control, and data systems become more complex, new techniques of industrial design and packaging have been necessary. During the past year Industrial Nucleonics has completely re-packaged its product line in order to provide a high degree of individual component standardization. Our larger measuring, control, and computing devices (referred to as Series "E" systems) will now use the same basic construction and packaging. Such product designs and layouts will provide a high degree of component standardization, but at the same time allow us to assemble these standard units into "custom" measurement and control systems.

To keep abreast of the newest, rapidly expanding electronic techniques has required considerable expenditure of engineering time. During the year the latest methods of printed circuits and transistorized units were developed and incorporated into certain of our products. With this work our new products are designed now to offer maximum reliability, unit accessibility, and ease of service.

At least two large orders in excess of \$100,000 can be traced to the new packaging and industrial design. Such industrial packaging gives us a definite advantage over our competitors.

## SYSTEMS

Ultimately, information from machines and processes will be automatically obtained and blended together with business and accounting information for over-all plant control. Automatic computing devices would then present management with definite recommended courses of action to maximize and optimize their operating profits.

As more measurements are made on different machines in the manufacturing processes, there is need to gather data from a number of measuring points, automatically organize this data, and make certain computations so as to present quality, production, and cost information. During the year Industrial Nucleonics designed and produced a system for automatically obtaining and computing quality control figures. This unit is referred to as the AccuRay Quality Control Center. A number of these systems were shipped to the tobacco industry last year. Future extensions of the Quality Control Center would compute production control, inventory control, and cost information.

In such over-all automation systems various computing devices are required. Considerable investments are necessary to develop large scale computers and data processing machines, especially those devices known as digital computers. Industrial Nucleonics is cooperating with various other companies in the measurement, instrumentation, and computer fields. Under such arrangements, Industrial Nucleonics will be able to apply its devices and know-how in measuring instrumentation, automatic controls, and over-all systems design. Other companies will then supply the digital computing systems, special measuring instruments, and data processing equipment. The various industry management groups in the company have developed "industry blueprints" or plans for these combination process control and data systems for each major industry to which we sell.

### PATENTS

To protect the company's investment in research and development of new products and systems, we have recently been following a vigorous patent program. Several patents have issued and, more importantly, there are currently on file in the United States Patent Office applications for a considerable number of other patents. These patent applications cover a wide range of measuring, control, and electronic devices. In particular, they cover many of our newer and advanced devices.

The right in one of the patents issued to Industrial Nucleonics has been challenged by a complaint entered in the Boston Court. It is believed that the anticipated outcome of the pending suit will be favorable to Industrial Nucleonics.

Previously, there have been few deterrents to competitors offering for sale or copying the same features as those we have developed at considerable expense to us in our various devices. We feel that as these various patents issue, our competitive position will be strengthened considerably.

### TERRITORIES AND SALES COVERAGE

As our potential increases through introduction of new products to new industries, we must support this potential with a strong, concentrated sales effort. It takes time and effort to train and develop highly qualified sales, applications, and service engineers. Even today Industrial Nucleonics has, to the best of its knowledge, the only specialized, highly qualified field, sales, and service organization in the automation industry. The key to effective utilization of instruments and control systems in industry is strong field sales, applications, and service.

## NEW PLANT AND FACILITIES

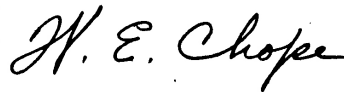
Industrial Nucleonics' operation has been spread out in nine smaller buildings and plants in the Columbus area. Lack of adequate and concentrated working space has produced certain inefficiencies in operation and communications. Under construction in a highly desirable industrial area just outside of Columbus is the new Industrial Nucleonics' plant. The buildings will occupy about 80,000 square feet, of which approximately one-half will be used for production and the other half for engineering, sales, and administration. The new plant will be sold to, and leased back from the Continental Assurance Company.

The new facilities and their location should prove to be an attractive feature in our hiring additional capable engineering and scientific personnel. The location is on a 26-acre site near the residential area of Upper Arlington. The new plant will be fully air-conditioned and will provide us with the finest production and engineering facilities in the Columbus area.

## FUTURE

The future of industrial automation and data processing is staggering to the imagination. Industrial Nucleonics' sales volume during the fiscal year 1958-59 should exceed those of previous years. The operating profit is difficult to predict because of the slow start-up of American industry in the early part and summer of 1958 as a result of the readjustments in the economy.

Industrial Nucleonics must continue to be a leader in the expanding fields of industrial automation and electronics. The tasks ahead are large and require concentration and hard work of all our people, but the rewards in terms of profits and benefits can be equally great.



President

Columbus, Ohio

October 27, 1958

INDUSTRIAL NUCLEONICS CORPORATION  
Comparative Balance Sheet  
As of April 30, 1958 and 1957

<u>ASSETS</u>	<u>April 30,</u>	
	1958	1957
	(per audit)	(per audit)
<b>CURRENT ASSETS:</b>		
Cash	\$ 159,322	\$ 136,890
Receivables (net)	665,630	697,966
Inventories	556,653	580,563
Prepaid expenses	69,776	39,169
Total current assets	<u>\$1,451,381</u>	<u>\$1,454,588</u>
 <b>EQUIPMENT LEASED TO CUSTOMERS (net)</b>	 <u>\$ 183,727</u>	 <u>\$ 104,544</u>
 <b>LAND AND CONSTRUCTION IN PROGRESS</b>	 <u>\$ 167,150</u>	 <u>\$ 109,764</u>
 <b>FIXED ASSETS:</b>		
Machinery and equipment	\$ 245,462	\$ 213,640
Furniture and fixtures	98,371	69,273
	<u>\$ 343,833</u>	<u>\$ 282,913</u>
Less - Allowance for depreciation	131,667	79,267
	<u>\$ 212,166</u>	<u>\$ 203,646</u>
Leasehold improvements (net)	18,368	18,511
Total fixed assets	<u>\$ 230,534</u>	<u>\$ 222,157</u>
 Total assets	 <u><u>\$2,032,792</u></u>	 <u><u>\$1,891,053</u></u>
  <u>LIABILITIES</u>		
<b>CURRENT LIABILITIES:</b>		
Notes payable	\$ 117,750	\$ 117,750
4% sinking fund debentures	45,000	57,000
Accounts payable	404,214	258,913
Accrued salaries, wages, taxes, interest, etc.	322,883	207,204
Federal income taxes	136,858	284,734
Total current liabilities	<u>\$1,026,705</u>	<u>\$ 925,601</u>
 <b>LONG TERM LOANS</b>	 <u>\$ 276,050</u>	 <u>\$ 328,100</u>
 <b>DEFERRED INCOME - LEASE EQUIPMENT</b>	 <u>\$ 89,592</u>	 <u>\$ 141,258</u>
 <b>CAPITAL STOCK AND SURPLUS:</b>		
Common stock - par value \$.10 - authorized 125,000 shares; outstanding 98,070 shares	\$ 9,807	\$ 9,850
Paid-in surplus	146,303	161,310
Earned surplus	484,335	324,934
Total capital stock and surplus	<u>\$ 640,445</u>	<u>\$ 496,094</u>
 Total liabilities	 <u><u>\$2,032,792</u></u>	 <u><u>\$1,891,053</u></u>



INDUSTRIAL NUCLEONICS CORPORATION

Comparative Statement of Profit and Loss

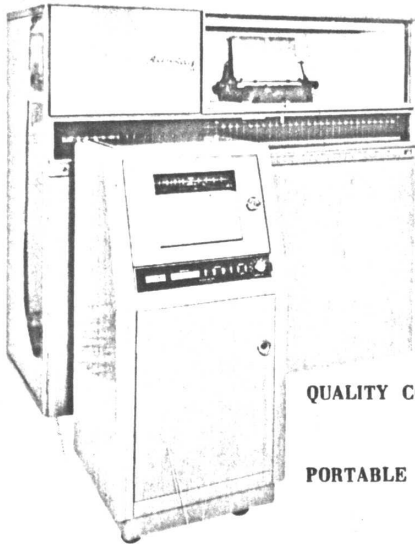
For the Years Ended April 30, 1958, 1957, and 1956

	Year Ended April 30,		
	1958	1957	1956
SALES	\$4,915,551	\$4,781,304	\$3,459,848
COST OF SALES	2,396,220	2,280,410	1,486,913
	-----	-----	-----
Gross Income	\$2,519,331	\$2,500,894	\$1,972,935
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OPERATING EXPENSES:			
Selling, administrative, research and development	\$2,184,623	\$1,951,557	\$1,391,504
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Net profit from operations	\$ 334,708	\$ 549,337	\$ 581,431
INTEREST EXPENSE	14,696	33,352	27,066
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Net profit before Federal income taxes*	\$ 320,012	\$ 515,985	\$ 554,365
Provision for Federal income taxes	160,610	291,000	164,000
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Net profit for the year	\$ 159,402	\$ 224,985	\$ 390,365
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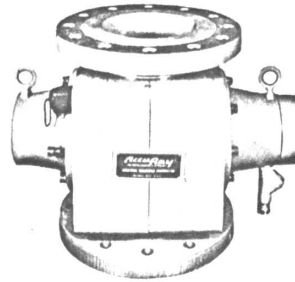
\* Provision for Federal income taxes reduced \$111,000 for year ended April 30, 1956, due to net operating loss carry forward from 1954.

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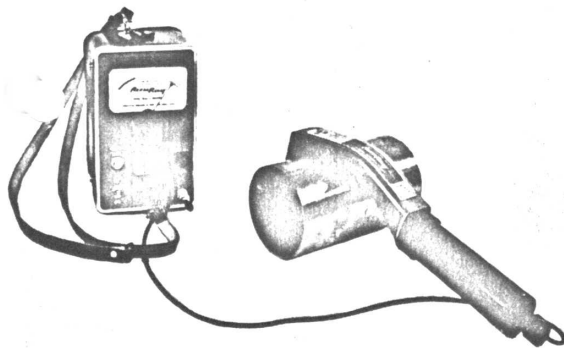
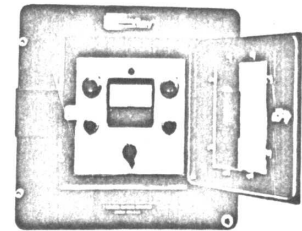
## NEW PRODUCT RELEASES 1957 - 1958



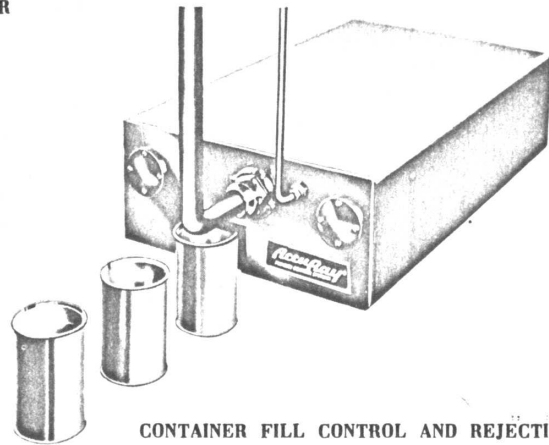
QUALITY CONTROL CENTER  
AND  
PORTABLE PROCESS ANALYZER



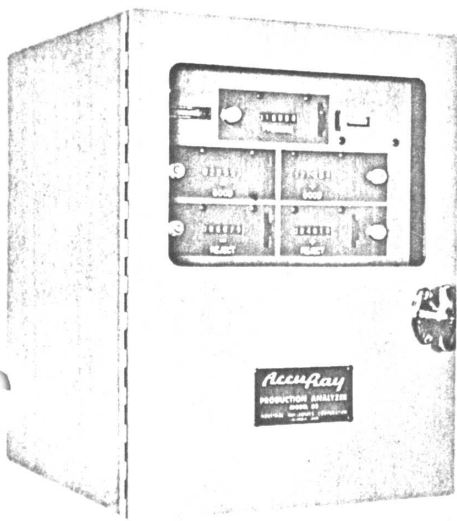
DENSITY GAUGES  
AND  
CONTROL SYSTEMS



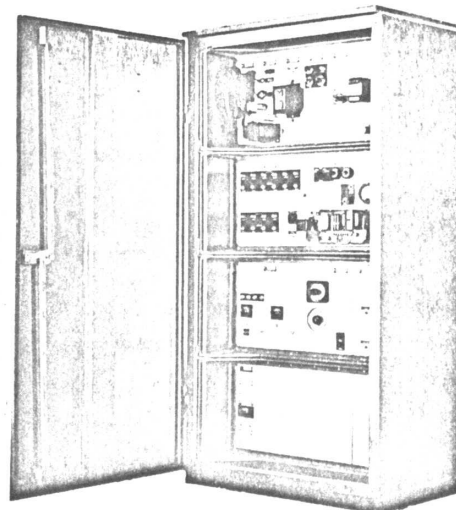
PIPEWALL THICKNESS GAUGE



CONTAINER FILL CONTROL AND REJECTION



PRODUCTION ANALYZER



SERIES "E" CONSOLE