# H. W. ULMER COMPANY

Divison of Microtron, Inc.

COMPANY RESUME

3018 SAN LUIS REY ROAD OCEANSIDE, CALIFORNIA

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# FOREWARD

The H. W. Ulmer Co. was started in 1959 by its president, Harold W. Ulmer. Mr. Ulmer had started a similar company after World War II and in 1958 sold it to Hughes Aircraft. Co. The H. W. Ulmer Co. was started as a sole entity, incorporated in 1961, and later in that year merged with Microtron Industries, Inc. of Denver, Colorado. Mr. Ulmer was elected president of Microtron Industries and continues to operate the H. W. Ulmer Co. as a subsidiary of Microtron Industries, Inc.

The H. W. Ulmer Co. was formed to manufacture and sell products developed by Mr. Ulmer during his 30-plus years in electron tube technology. These products are all allied to the manufacture of tubes. They embrace the clean room electronic welding techniques: stored energy resistance welders; the vacuum techniques: vacuum systems, gauges and controls; as well as the techniques for tube assembly: micro welded modules, and the tubes themselves.

Research and Development studies in these and allied fields round out the area of concentration for the H. W. Ulmer Co.

Mr. Ulmer, while heading up both Microtron Industries, Inc. and the H. W. Ulmer Co., will spend a large portion of his time in research and development and maintains his offices in the corporate building, 3018 San Luis Rey Road.

William D. Parkinson, secretary-treasurer and controller also maintains his offices at 3018 San Luis Rey Road.

David L. Wyand, Marketing Manager and Staff Engineer establishes his headquarters in the mezzanine of the corporate building.



3018 SAN LUIS REY ROAD



2941 SAN LUIS REY ROAD

# STORED ENERGY WELDING EQUIPMENT

The Ulmer line of welders cover a wide range from precision low watt-second types, capable of welds in the fractional thousandth range, up to the large 2700 watt-second unit, capable of making projection ring welds on heavy steel sections. There are spot, seam and butt welders, precision heliarc welders, welder controls and accessories.

Stored energy welding is a class of resistance welding that is replacing soldering and brazing for an increasing number of applications. It offers opportunities of higher production, reliability, economy and flexibility. The Ulmer Co. welders offer also a combination of simplicity, efficiency and trouble-free operation that allows the use of only moderately skilled operators.

A variety of welding accessories can be plugged into the power supply unit depending on the size, nature and configuration of the metals to be welded. The H. W. Ulmer Co. welding equipment is made for work; steady, accurate for everyday production. Into its design has gone oversize components and sound electrical design for thorough reliability.

## HIGH VACUUM SYSTEMS AND EQUIPMENT

The H. W. Ulmer vacuum equipment includes vacuum systems, gauge controls and tubes.

Ulmer high vacuum systems are built for both laboratory and production use. These systems are well know for their reliability. They are designed so that any major part may be removed and replaced in 15 minutes. The systems can be tailored to exacting requirements through a choice of system configurations and the Ulmer line of vacuum accessories.

The vacuum gauge controls cover vacuum measurement from l MM Hg (1000) Microns) to  $10^{-12}$  MM Hg. These include thermocouple, Philips cold discharge, ionization and Pirani gauge controls.

A full line of vacuum tubes is also part of the Ulmer vacuum equipment. Where there is a need for vacuum or for vacuum measurement, Ulmer has the equipment for the job.

## MICRO WELDED MODULES

The Ulmer circuitry engineers are experts in designing to attain highest density and to satisfy today's circuitry requirements. Our packaging engineers are grounded in the capabilities of every component used in our micro modular construction and our R & D facility is making constant environmental, reliability and MIL type tests on all components used.

Ruggedness and high reliability are achieved by the Ulmer modules because once this high density package is properly put together, our encapsulation engineer takes over and sees that your module is potted in exactly the right compounds under exactly the right conditions to insure long, maintenance free life under all subjected environments.

Micro welded modules are specifically designed to solve individual requirement problems. Our facility is set up to give volume production along with individually checked reliability.

BOARD OF DIRECTORS POLICY BOARD

	1		1
E. Gaylord		FINANCE Don Parkinson	ELECTRON TUBE DIVISION
H. E. Noble		ADMINISTRATION	WELDED CIRCUIT DIVISION
W. G. Waldeck	PRESIDENT Harold W. Ulmer EXECUTIVE VICE PRESIDENT	OPERATIONS	
W. D. Parkinson		MARKETING David L. Wyand	EQUIPMENT DIVISION
H. W. Ulmer		ENGINEERING H. W. Ulmer	SPECIAL PROJECTS DIVISION

Legal Service is provided both by Mr. William G. Waldeck and from outside specialists, on a contract basis.

Medical Service is provided by a medical center on a contract basis.

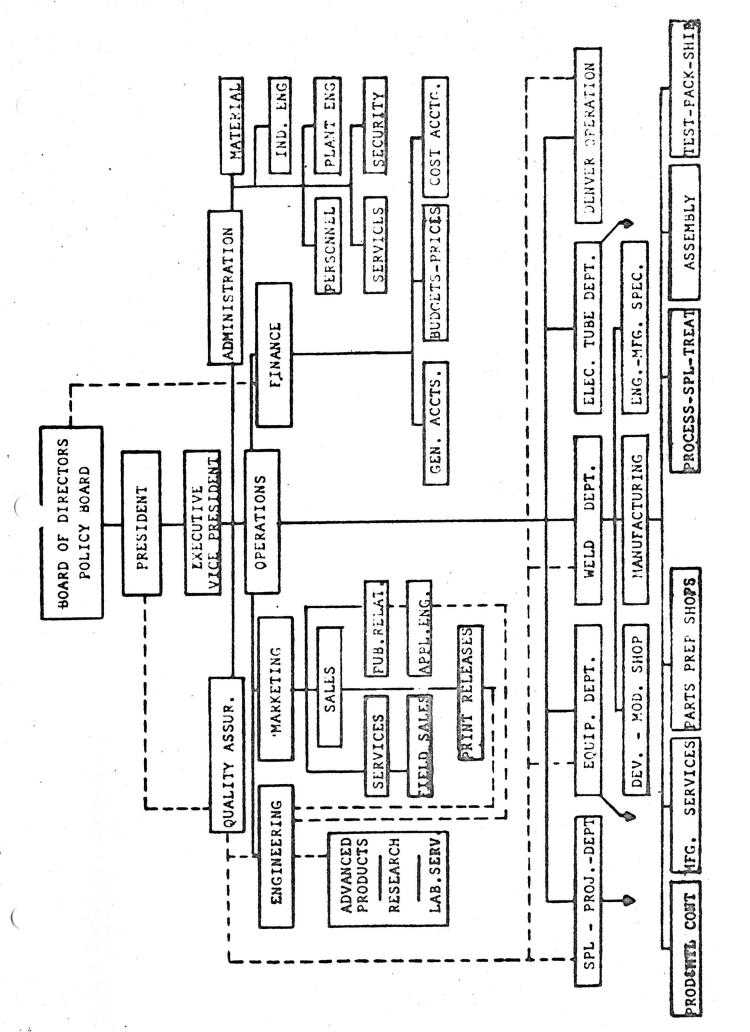
Security is provided by our own internal security officer and by a contracted security patrol service.

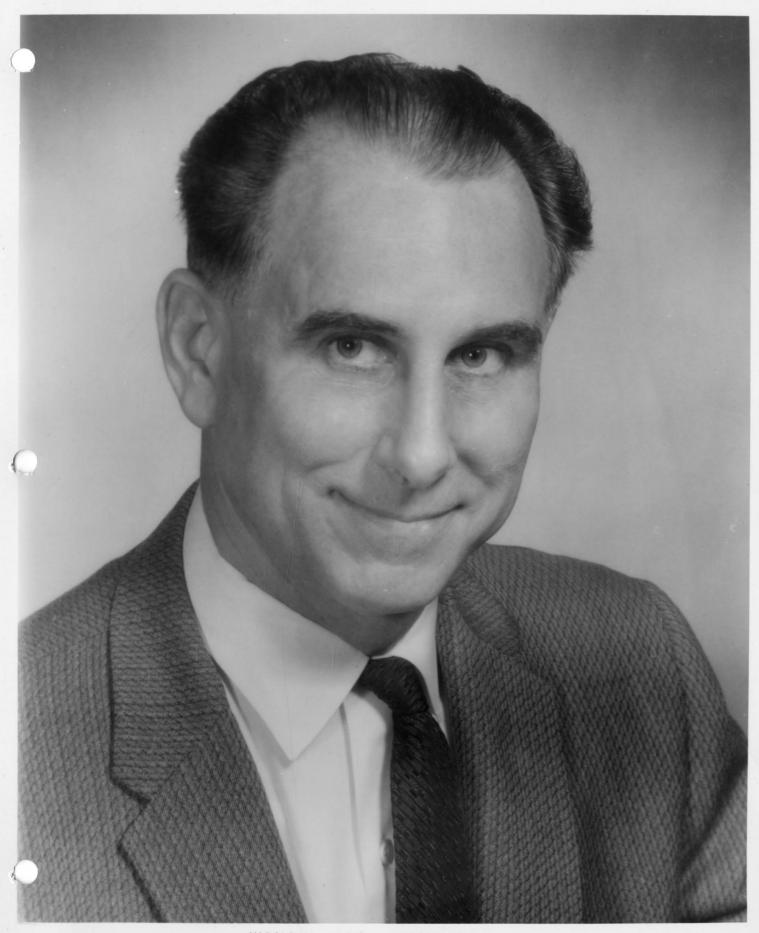
Major construction and major plant rearrangements are contracted on individual purchase orders.

The Finance Officer supplies duplicate statements to the divisions and management.

CPA Service is handled on a contract basis, coordinated by Mr. Don Parkinson, Controller.

Public image creation is provided by an outside firm on a contract basis, coordinated by Mr. David L. Wyand, Director of Marketing.





HAROLD W. ULMER - PRESIDENT

### RESUME

HAROLD W. ULMER

PRESIDENT

Harold W. Ulmer, founder and owner of the H. W. Ulmer Co., has thirty-one years experience in the development and production of electron tubes, resistance welders and vacuum systems, gauges and controls.

His experience includes senior engineer of Federal Telegraph Co. (later changed to Federal Telephone and Radio Corp.), section head of Raytheon Mfg. Co. power tube division where he was in charge of thirty-five tube types. While manager and tube consultant for San Diego Convair electron tube laboratory, he designed and calibrated early missile control components and made programming mechanism for MX774, the first American missile to fly.

Mr. Ulmer founded and operated Vacuum Tube Products from 1947 to 1959 as its president and chief engineer. He was responsible for the management of product lines with sales of \$1 million annually in electron tubes, vacuum devices and resistance welders. In 1959 the company was purchased by Hughes Aircraft Co. in order to secure the services of Mr. Ulmer. He then became manger of Hughes Electron Tube Division and set up a high production microwave tube facility for the Long Range Interceptor Radar Program.

Mr. Ulmer is a senior member of the Institute of Radio Engineers and charter member of the California Society of Professional Engineers.



W. D. PARKINSON - CONTROLLER

#### RESUME

W. D. PARKINSON

SECRETARY-TREASURER CONTROLLER

W. D. Parkinson, Secretary-Treasurer, Controller graduated from North western University in accounting. His work experience includes positions from accountant through head of finance department and comptroller; operation of private business investment; accounting services on contract basis; auditing for tax law conformance.

He entered the Army in 1941 and advanced to Captain. Served as director of personnel and camp control officer at Camp Carson, Colorado.

Prior to World War II, he was in charge of the finance department for the Borden Company, Chicago, Illinois. After the war he did contract accounting and auditing; operated private business investments including owner and operator of a recreation resort.

From 1958 until joining the H. W. Ulmer Co., Mr. Parkinson progressed from head accountant to comptroller of the Vacuum Tube Products, Inc. His duties as office manager included supervision of all office force, handling all funds from receipt through deposit and disbursement, budgets, pricing cost accounting, and responsibility for the financial integrity of the company operations.

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CHARLES L. GILES

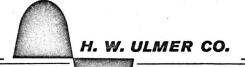
RESEARCH ENGINEER
DESIGN SPECIALIST

Twenty-two years in the field of electronics. His experience includes that of design specialist for Vacuum Tube Products where he developed vacuum tubes, rectifiers, controls, ion pumps and their power supplies. He developed an improved high vacuum cold cathode discharge vacuum gauge for which a patent is pending; worked with ultra high vacuum systems.

He has developed a fractional cycle resistance welder control, timers and programers; built up complete exhaust systems and rf bombarders and developed techniques for many types of research work. Mr. Giles has also developed photographic techniques for applying multi-colored screens to cathode ray tubes and fabricated many highly specialized tube types to customer specifications.

While on active duty with the U. S. Navy he was a supervisor of instruction in the Naval electronics field. He was Chief Engineer for several radio stations and has been an amateur radio operator since 1941.

Mr. Giles attended Radio Engineering School, Topeka, Kansas; Navy Electronics School; Lowell Textile Institute; Oceanside-Carlsbad College; Capitol Radio Engineering Institute and Padific International University.



#### RESUME

## DAVID WYAND

MARKETING MANAGER

David Wyand, Marketing Manager, has two degrees in engineering. His academic work included Marine Engineering at California Maritime Academy and Electrical Engineering at the University of California. The academic work at the University of California included two full sessions under the Cooperative Work and Study Program. He served as Electronic Repair Officer and Main Propulsion Officer in the United States Navy, Amphibious Force. During the tour of military service, he completed the Officer Electronic Material course at Treasure Island, California.

Upon graduation from the University of California he spent two years with Westinghouse Electric Corporation, Baltimore, Maryland. The assignment was Supervising Field Service Engineer. From 1958 until joining the H. W. Ulmer Company, David Wyand was employed by Eitel McCullough Corporated. His duties included Government Marketing, Customer Service, Application Engineering, and Product Manager.

LILLIAN O. MC EWEN

SUPERVISOR
TECHNICAL ELECTRONICS

Mrs. Mc Ewen has spent the last eight years in the fields of supervision and developmental engineering. She is well experienced in the work of assembly of vacuum gauge tubes, controls, welders and special electronic wired assemblies, including wired circuits and resistance welded module circuits. She has operated all types of welding machines; hydrogen fired parts by both radio frequency and hot tungsten coil method; exhaust equipment; complete glass work; and at one time was the sole operator on the cathode spray program for xenon thyratron high reliability program.

She was formerly with Vacuum Tube Products where she had experience supervising many employees, male and female and assisted labor and management in union negotiations. Mrs. Mc Ewen also spent one year with Triplett Electrical Instrument Corp. as line foreman of assembly of electrical indicating instruments.

Along with her present work as development engineer, she also is responsible for quality control functions and microscope inspection of in progress and completed work. She attended Oceanside-Carlsbad College and Palomar College.