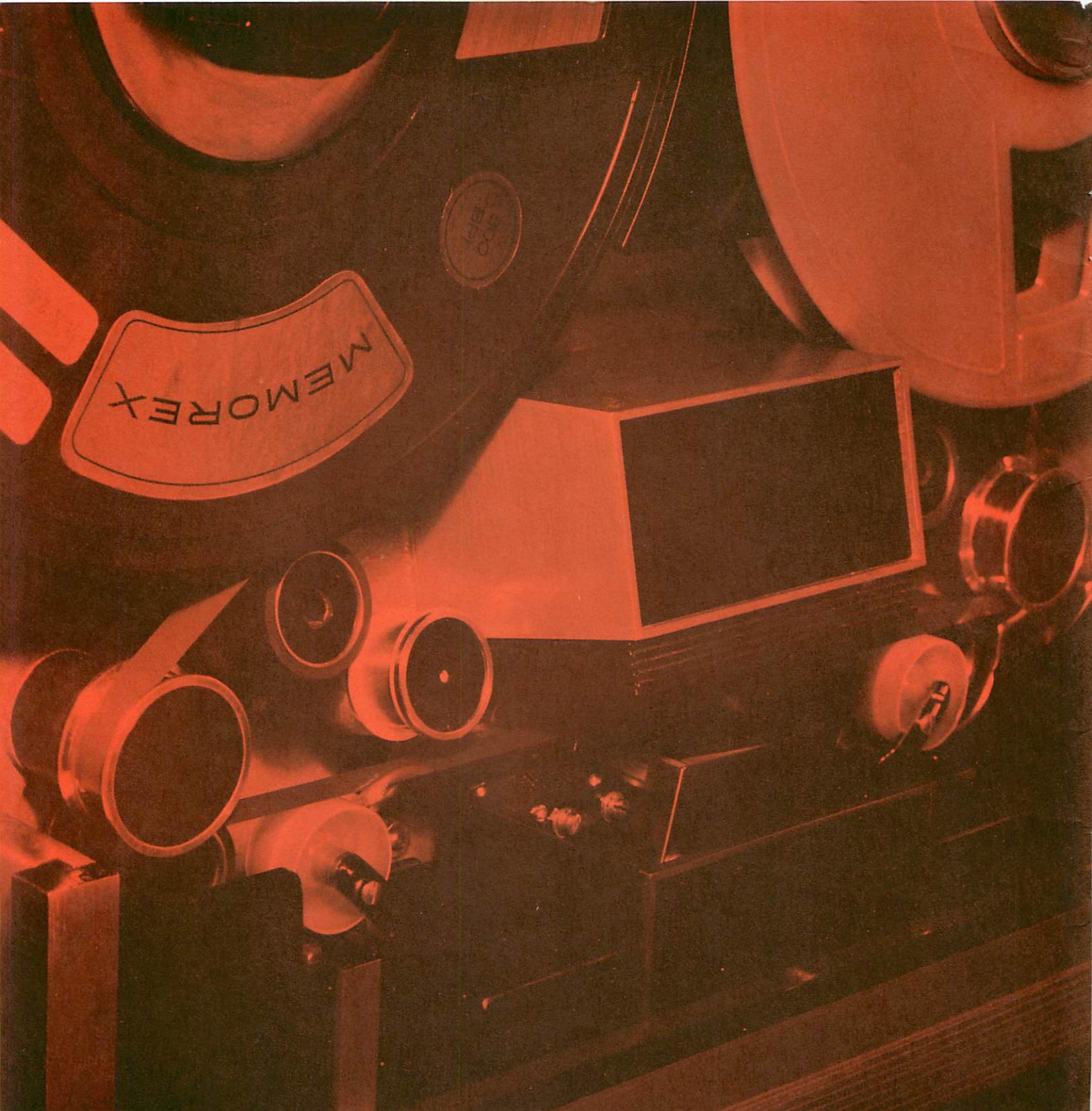




MEMOREX



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1970

a challenge and an objective

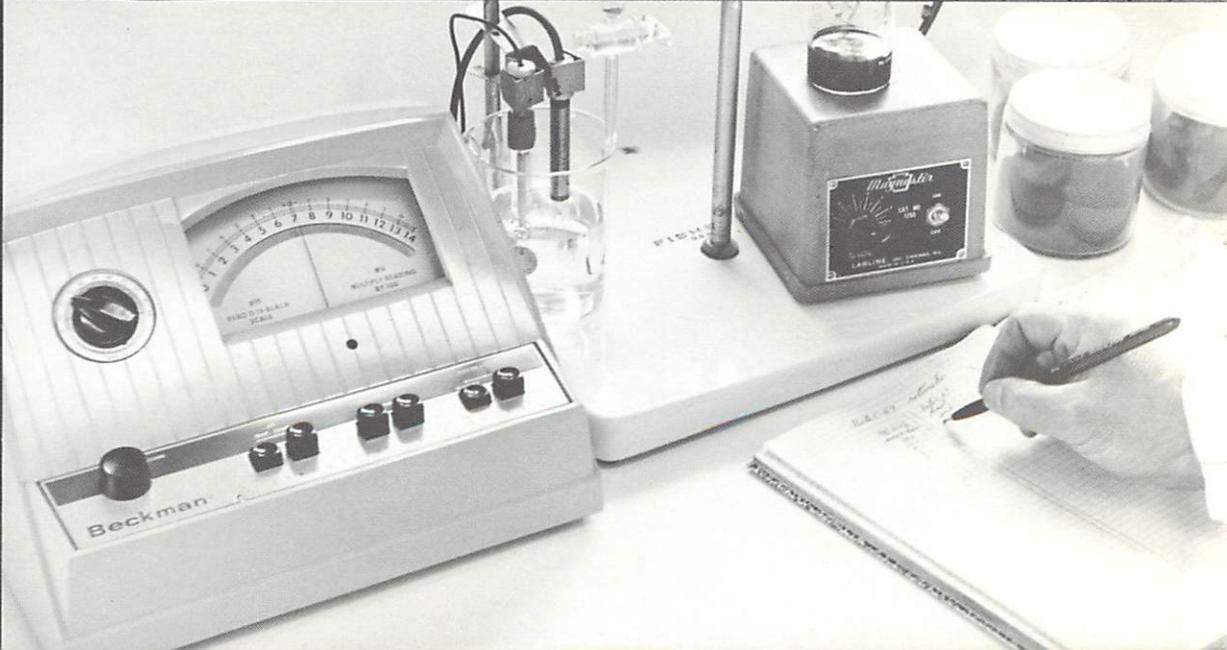
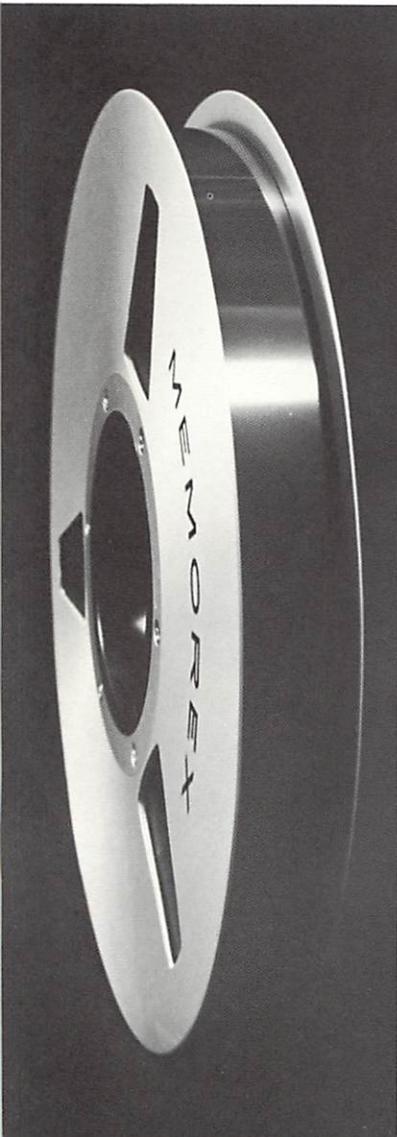
Though magnetic tape is accepted as a preferred medium for information storage, the technology of tape recording is hard pressed to keep pace with the demands imposed upon it. As the quantity of data continues to increase and data manipulation becomes more sophisticated, the magnetic tape itself, more than the recording device, becomes the limiting factor.

Memorex has accepted this challenge. Memorex is dedicated to creation of magnetic tapes which more fully utilize the capabilities of advanced recording equipment. Memorex restricts its production to precision tapes for digital computers and for the most exacting analog recording applications.

Memorex's objective is simple: to make tapes that

- perform better
- perform longer.

for volume demands and critical requirements



Memorex precision tapes have achieved within the short span of two years acceptance of customers whose standards are highest and whose applications are most demanding, including

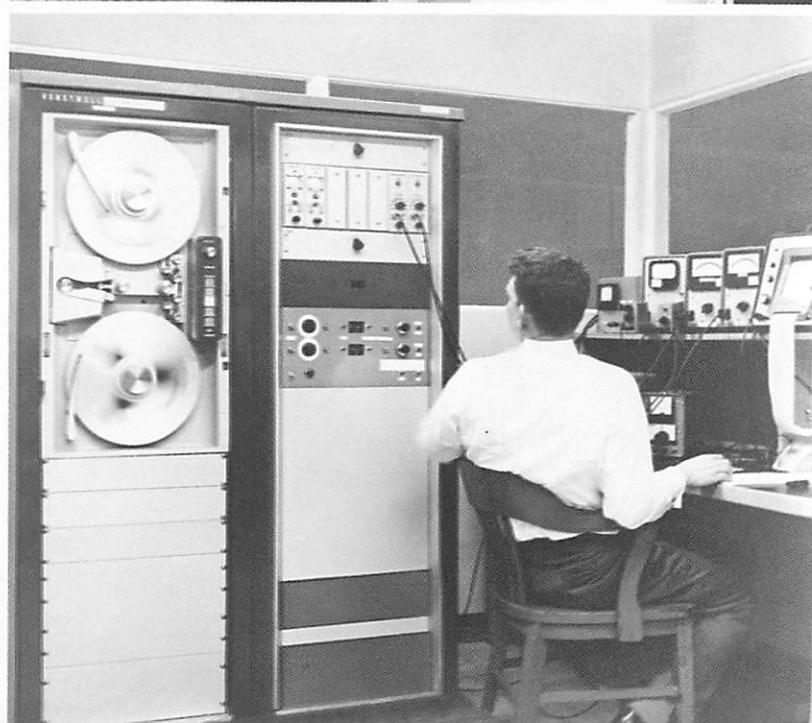
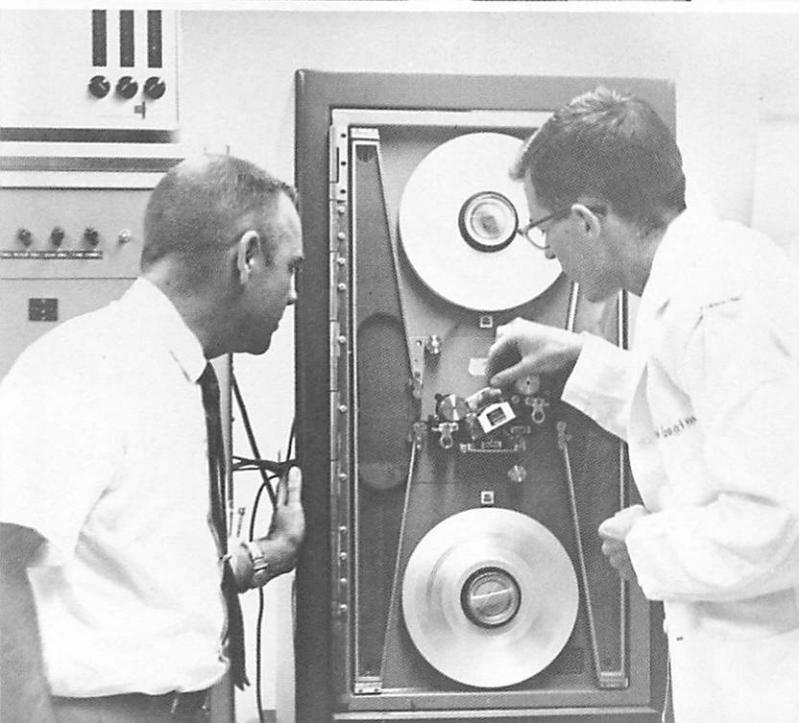
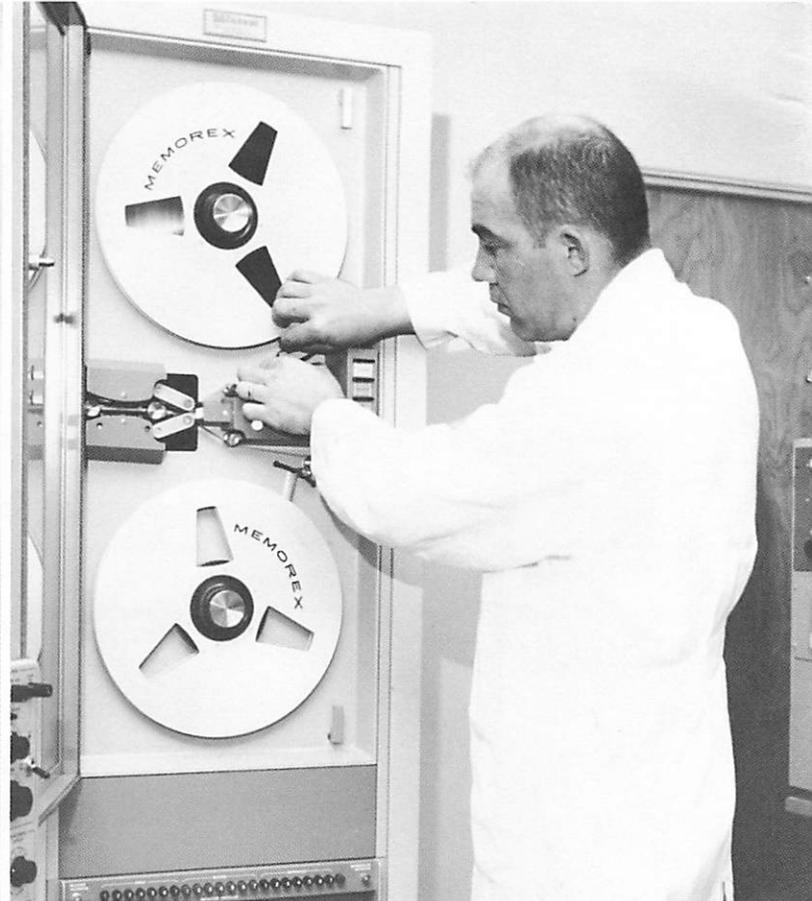
- the largest U. S. government aero-space agency
- the largest non-government computer network.

It is significant that Memorex is primary supplier to these users.

To meet the volume demands and critical require-

ments of its customers, Memorex by-passes traditional methods and strips away commonly-accepted mysteries of tape-making. At Memorex, tape manufacture is a **predictable science**. Consistency and reliability of large scale production are inherent in Memorex's utilization of the techniques of automation and continuous monitoring, scientifically controlled processing, and manufacturing methods from the pharmaceutical industry.





tape ingredient—an intimate knowledge of tape recording

Few problems encountered by the tape user hold mystery for Memorex; the collective experience of Memorex people includes first-hand knowledge acquired both in recorder manufacture and, importantly, in day-in, day-out use of recorders. A uniquely qualified research group, thus, is able to focus its efforts on the recurring problems of tape use, to develop new and original solutions to these problems, and to perform continuous studies on such factors as tape wear and its effects on reliability.

The result—as each problem is in turn explored, scientifically analyzed, and resolved—is a new set of parameters and improved design specifications to set before Memorex chemists, physicists, and magnetic particle specialists.



from the "white room," an error-free product

The resemblance to a pharmaceutical laboratory is intentional; Memorex borrows both talent and technique from an industry equally diligent in avoiding contamination. Air is washed and filtered mechanically and electrostatically, and the entire production area is kept under positive pressure. Never a fleck of dust survives to become a drop-out on the tape. The Memorex system for coating and curing tape is completely unique. Totally automated, this highly

instrumented system continuously monitors and adjusts itself. Traditional processing methods, with their people-related skills and variables, are replaced by scientific methodology.

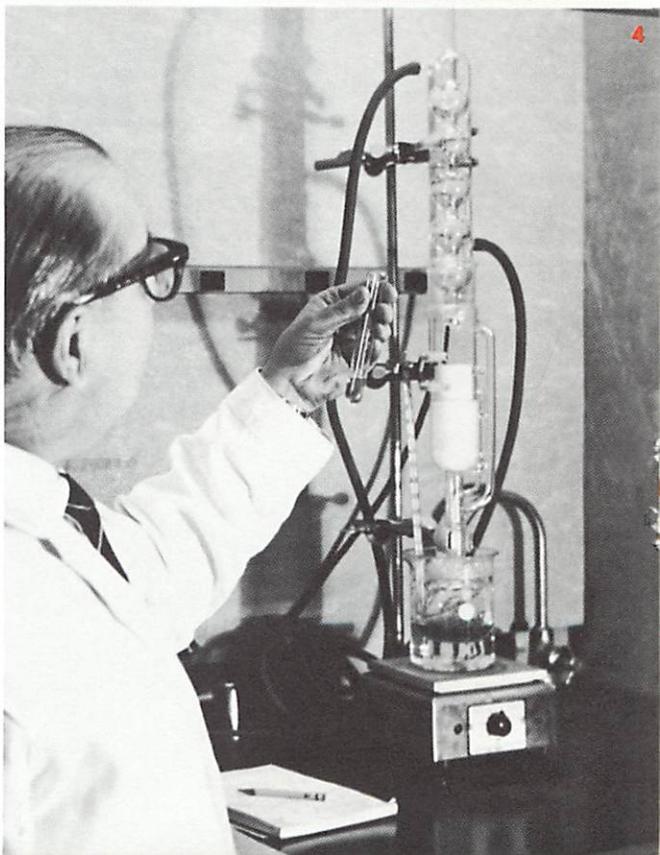
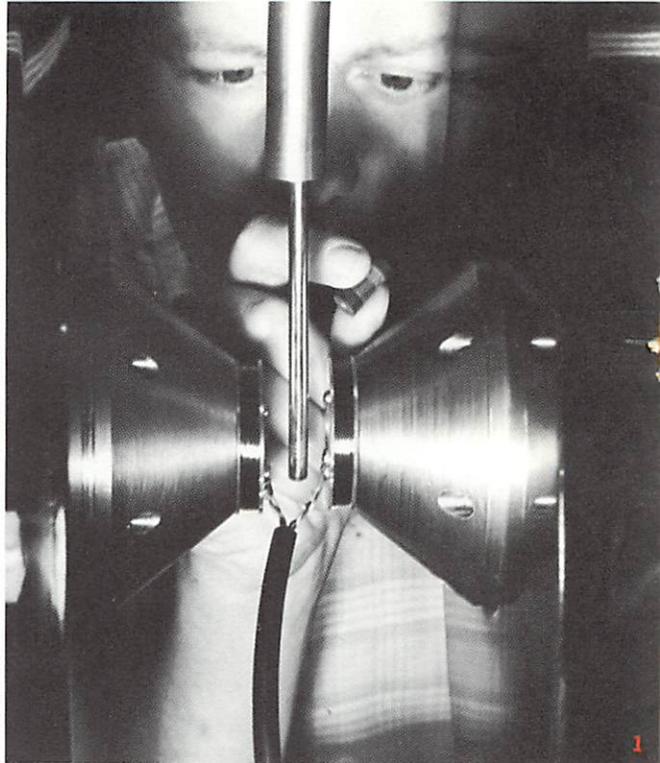
The Memorex system provides a predictable and unvarying yield of uniformly high quality. Culling production to obtain "best grade" is alien to Memorex manufacturing. Hence, the reel-to-reel consistency of Memorex production runs throughout the year.

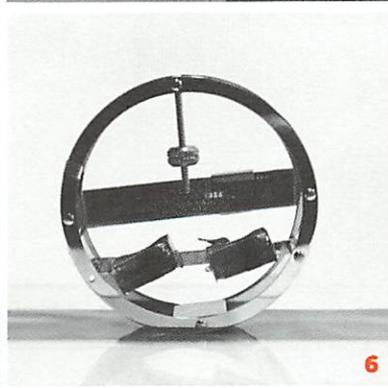
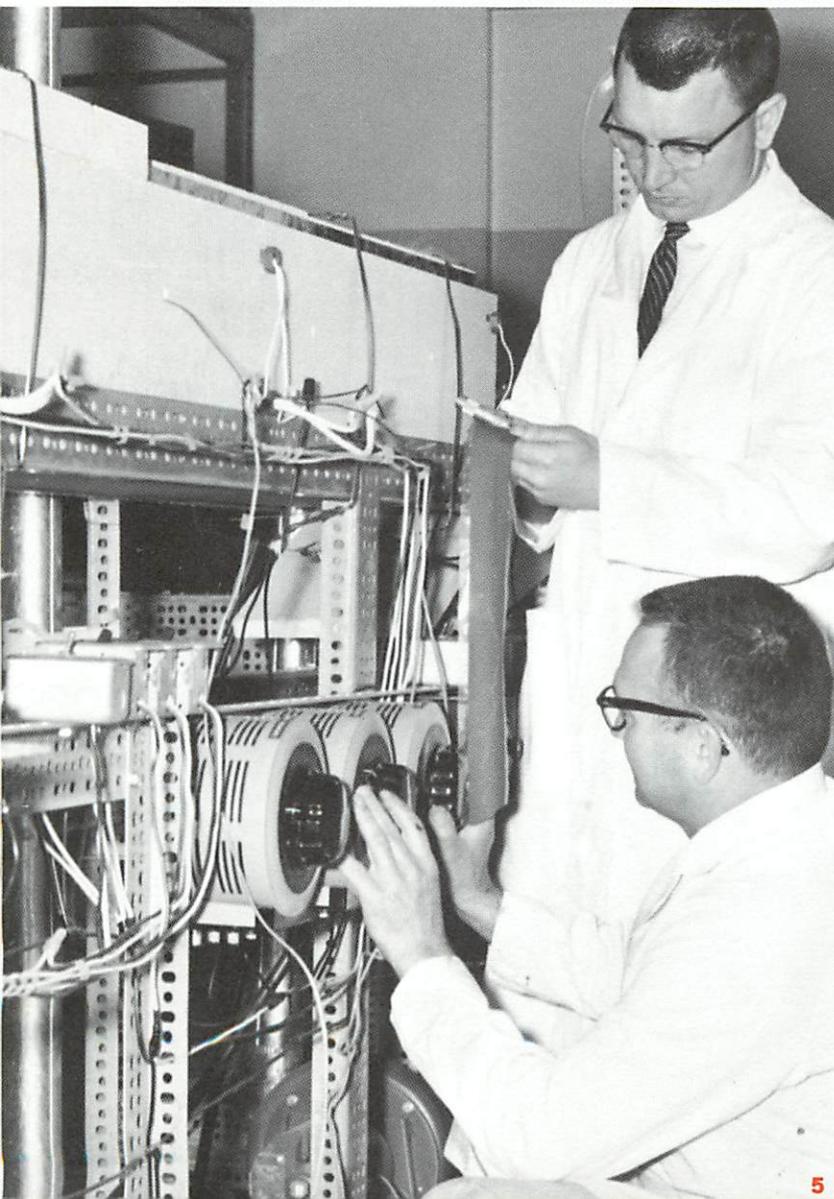
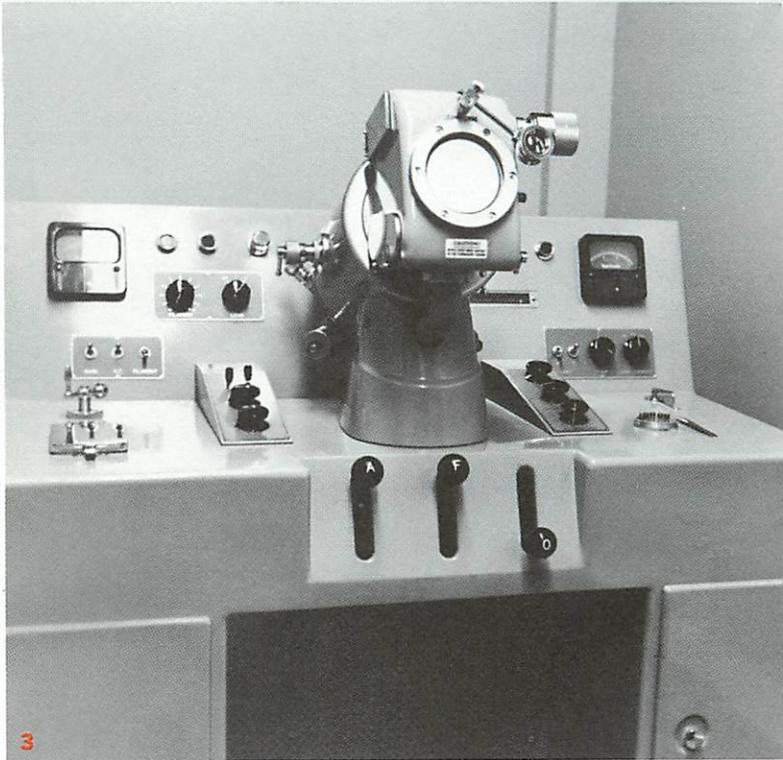
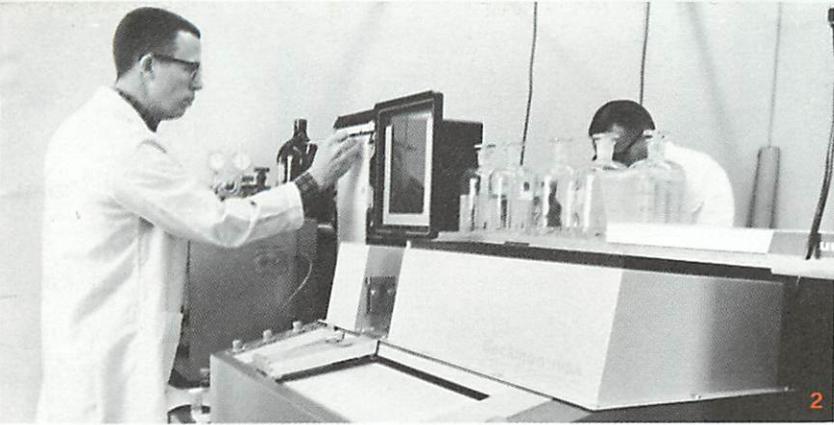


unique tools, unique talents

An important key to making tape of predictably high quality is the ability to make critical measurements of electrical, chemical, and physical properties. Both in the research which precedes the manufacture of a reel of tape, and in monitoring its production, Memorex places heavy reliance on scientific instrumentation, developed by Memorex to measure parameters never before considered in tape-making.

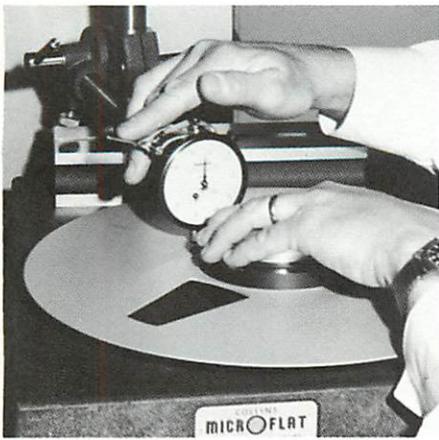
Equally important is the interdependent relationship existing among Memorex scientists—polymer chemists, tape recording engineers, magnetic phenomena physicists, and process engineers. The blending of these disciplines produces effective evaluation-in-depth of tape problems, both in manufacture and in use. Regular field trips by Memorex research and manufacturing people assure that Memorex retains both its technological leadership and its **customer orientation.**





1. Memorex-designed instrument probes secrets of magnetic materials
2. Spectral analyses help in formulation of tape coatings
3. Electron microscope permits visual study of micron-size particles
4. Rx for superior tape: scientific talents second to none
5. Experimental tapes are processed on a pilot line
6. This device helps tell how hard the coating, how tough the tape
7. "Draw-down" of an oxide dispersion preparatory to coating



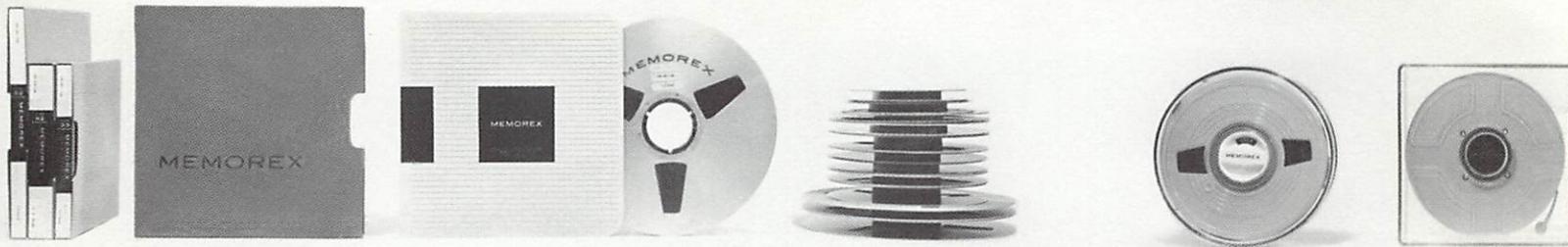


assurance that specifications are met—or exceeded

Every inch of every reel of Memorex dropout-free computer tape is performance-checked to the industry's most exacting standards. High-speed transports, with signal clipping levels set well in excess of user requirements, write digital information on all channels and read it back for 100% verification.

This is but one of many test procedures; all ingredients, materials, and resulting products are subject to exhaustive and continuing scrutiny at every step of the way. (Even the empty reel must meet high standards—through a series of 11 quality control procedures—to insure its precision performance.)

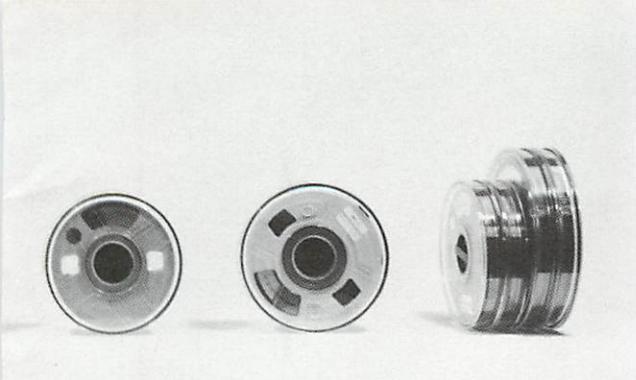
Product integrity is the responsibility of a completely independent function—the Quality Assurance Laboratory—which is, by definition, freed from concern with delivery schedules and related pressures. It insures, by routinely monitoring all quality control functions, that every reel of Memorex precision tape placed in use meets or **exceeds** its specifications.



Because Memorex produces a wide range of precision tapes, the user need never compromise because of unusual tape performance needs. Four basic types of precision tapes (seventeen individual subtypes) insure availability of the proper coating, backing thickness, and performance characteristics for every tape application.

Memorex supplies tape in the complete range of lengths, widths, reel configurations, and packaging to meet all known commercial requirements.

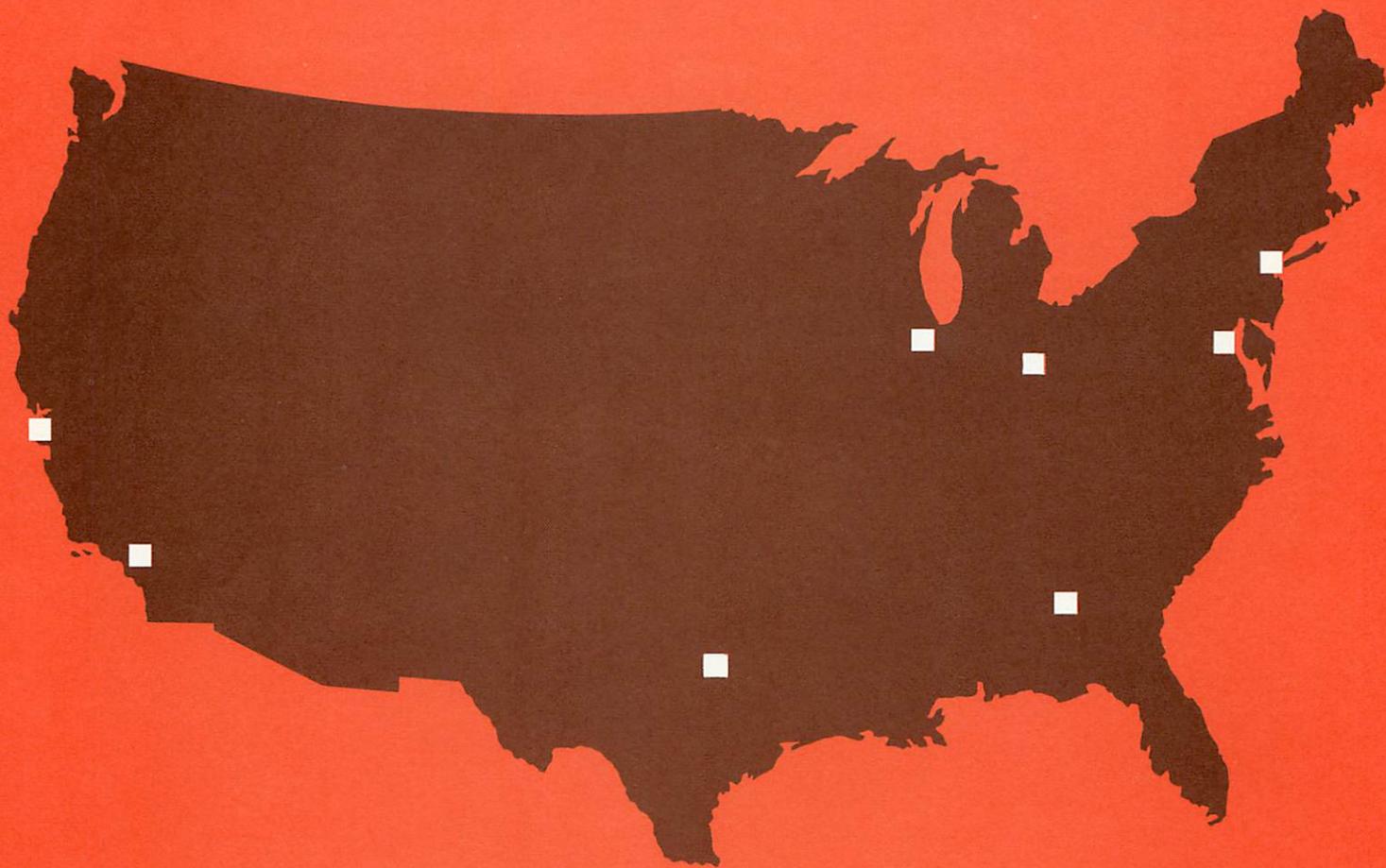
| | T Y P E |
|--|--|
| 22 Heavy-Duty Computer Tape | 800 BPI 556 BPI 100% Certified |
| 42 High-Resolution Instrumentation Tape | 42J 1-mil 370 μ -inch 42K 1-mil 270 μ -inch 42L 1-mil 170 μ -inch 42J 1 1/2 mil 370 μ -inch 42K 1 1/2 mil 270 μ -inch 42L 1 1/2 mil 170 μ -inch |
| 62 Ultra-Performance Broadband Instrumentation Tape | 62J 1-mil 370 μ -inch 62K 1-mil 270 μ -inch 62L 1-mil 170 μ -inch 62J 1 1/2 mil 370 μ -inch 62K 1 1/2 mil 270 μ -inch 62L 1 1/2 mil 170 μ -inch |
| 75 Precision Television Recording Tape | 75P 1-mil 450 μ -inch <hr/> 75V 1-mil 450 μ -inch |
| 77 Precision Television Recording Tape | 77V 1-mil 450 μ -inch |



a specific tape for a specific requirement

| A P P L I C A T I O N | C H A R A C T E R I S T I C S |
|--|--|
| For IBM, RCA, GE, NCR, UNIVAC, Burroughs, CDC, Honeywell and similar digital computers | Offers freedom from errors, improved reliability, roll-to-roll consistency and longer wear.* |
| For instrumentation recorders operating down to 250 μ inch wavelengths or less (250 kc or more at 60 ips). | High sensitivity coatings with improved signal-to-noise ratios and consistently superior high frequency responses.* |
| For broadband recorders operating down to 80 μ inch wavelengths or less (1.5 mc or more at 120 ips). | Highest signal-to-noise ratio and best high frequency performance of any tape, coupled with low dropout incidence even after one hundred or more plays.* |
| For helical-scan video recorders requiring 1-inch wide tape. | A new standard of excellence in video tape. Eliminates head clogging; increases head life; features high still-frame capability and lowest dropout incidence; offers full audio performance, measurably longer tape life and consistently high video output. |
| For helical-scan video recorders requiring 2-inch wide tape. | |
| For broadcast video recorders requiring 2-inch wide tape. | Special binder system and super-smooth surface provide freedom from head clogging, lower dropout incidence, and extended head and tape life. |

*All Memorex tape coatings are made electrically conductive to dissipate static charge.



Memorex's California location permits close technical liaison with a broad range of tape users and recorder manufacturers (7 major computer and instrumentation recorder plants are located in California). Quick access to major airlines puts the availability of Memorex tape within hours of all major U. S. cities. **Standard** delivery in New York, Miami, or Washington D. C. is within 48 hours from order placement to receiving platform.



the right tape, at the right time, in the right place

MEMOREX BRANCH OFFICES

NEW YORK
WASHINGTON
ATLANTA
CHICAGO
DALLAS
DAYTON
LOS ANGELES
SAN FRANCISCO

EUROPEAN OPERATIONS

MEMOREX PRECISION PRODUCTS, LTD.
Maidenhead, Berkshire, England

MEMOREX S. A. R. L.
Paris, France

EXECUTIVE OFFICES
AND MANUFACTURING FACILITY

1180 Shulman Avenue,
Santa Clara, California
(408) 248-3344
TWX 910-338-0131

Memorex markets its products directly to the user, and offers him the benefits of flexible procedures, quick decisions, and close attention to his needs.

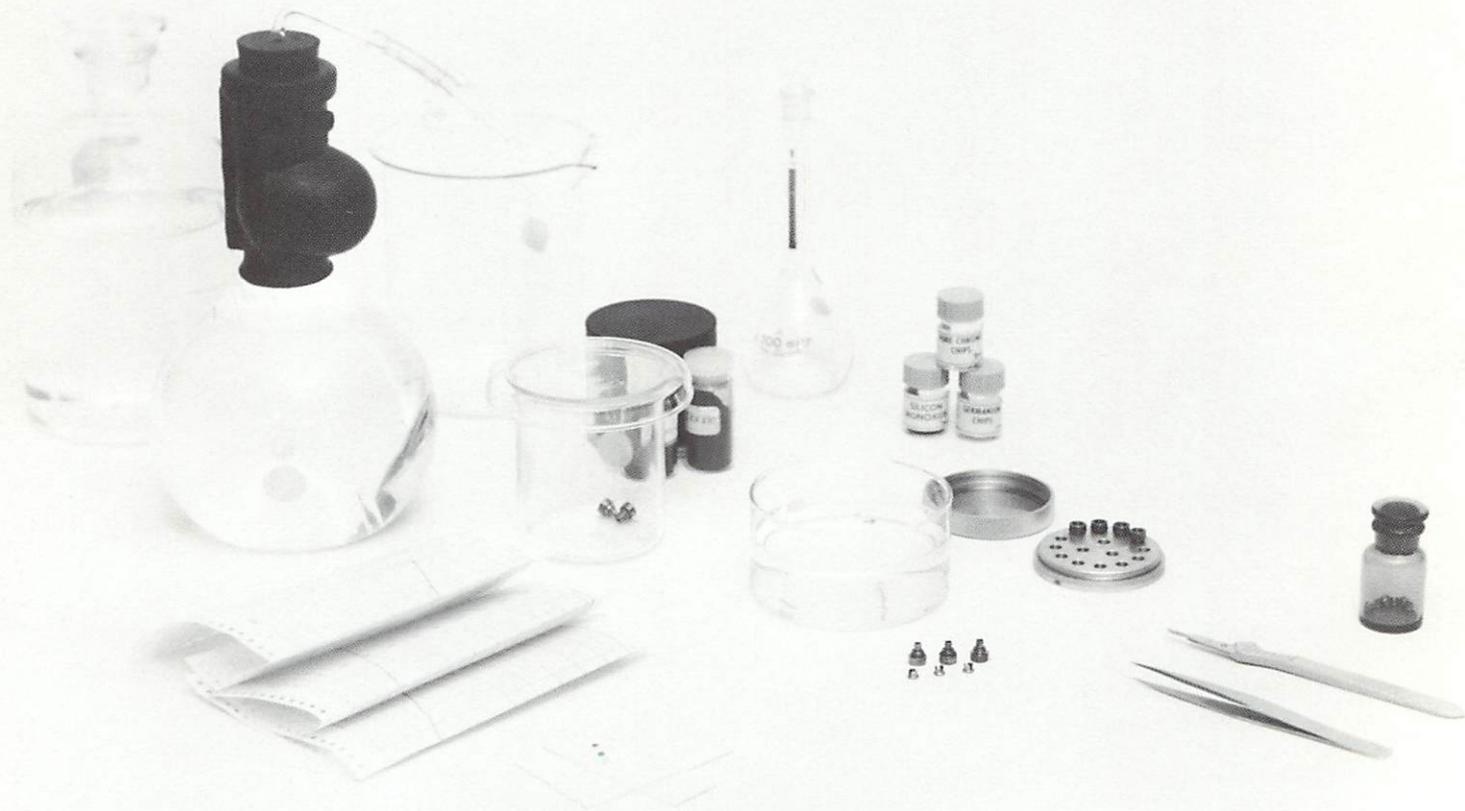
Sales engineers operating from Memorex branch offices are highly trained professionals, intimately conversant with tape and tape recording problems. Also, senior research and production staff members lend technical support to efforts in the field, making the benefits of their broad experience available to customers.

not an end but a beginning

Memorex technology has produced new standards of consistency and reliability for quality tape products and significant performance benefits to Memorex tape users. But its achievements have produced no complacency.

Today, Memorex development people are engaged in intensified efforts to make **yet better products**. They

continue to make use of the elements of past success: originality, innovation in production equipment, scientifically controlled processing, incorporation of pharmaceutical production methods. Users can be confident that what is past is prologue: the thrust of Memorex technology will continue to pay dividends in better performance for Memorex tape users, and in higher standards for all tape users.





MEMOREX

PRECISION MAGNETIC TAPE

THE COMPUTER HISTORY MUSEUM



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