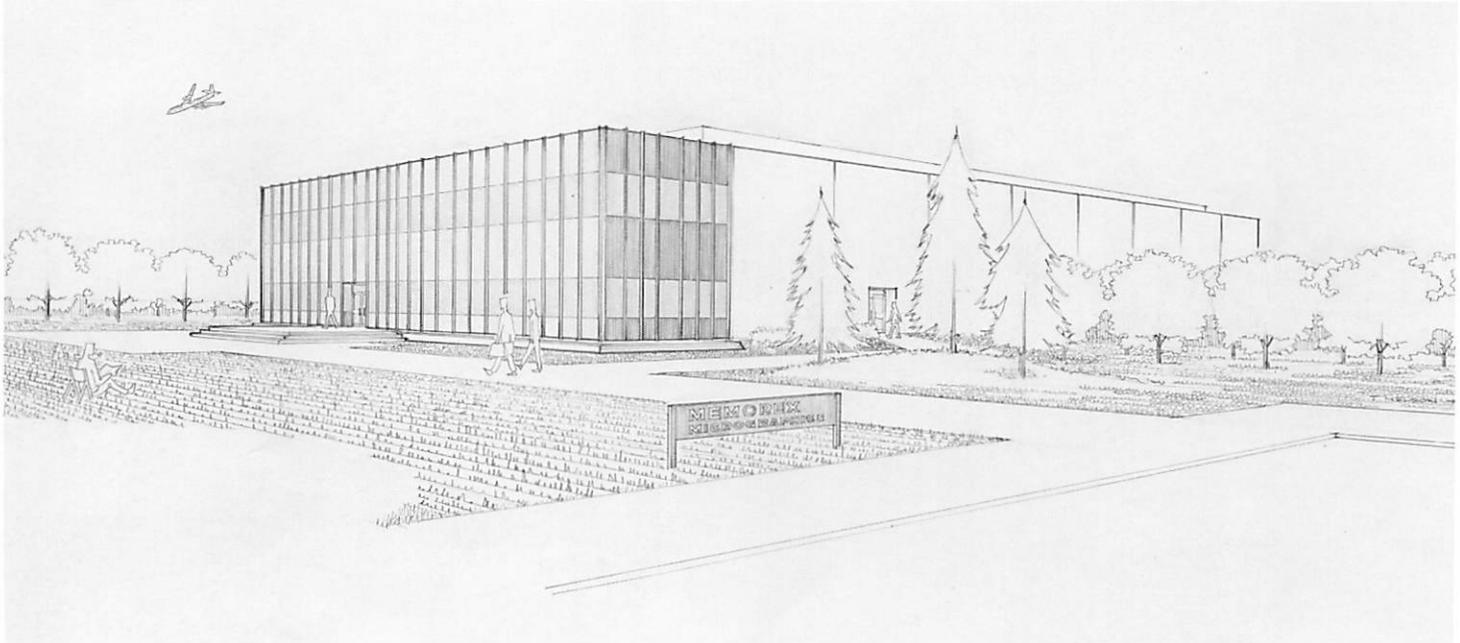




INTERCOM

Micrographics Plant To Be Completed In Early 1971

The drawing below, done by Trevor Nelson, shows how the Micrographics Building will look when completed.



Construction has begun on the Micrographics Division's new plant in Santa Clara. The division makes microfilm and chemical supplies for the Memorex 1600 computer output-to-microfilm (COM) system.

The 44,000 square foot structure will be located in the northeast corner of an 83-acre parcel on Kifer Road, just west of San Tomas Expressway. Jim Sasso, the project manager from Corporate Facilities, describes the building as a "two-story concrete tilt-up, designed so that it can be expanded to several times its initial size." (A "tilt-up" building is one in which the concrete walls are poured and then lifted into place.)

When completed late this year or early in 1971, the building will house more than 100 Micrographics employees in its offices, production clean room, lab, and warehouse areas.

The plant is scheduled to be in full production by April and Memorex is currently working with the Bay Area Air Pollution Control District to insure that the production facilities will not add pollutants to the air.

The building will face Central Expressway, with the main entrance on Kifer Road; however, the City of Santa Clara will provide additional access to the site. The City plans to extend Walsh Avenue across San Tomas Expressway and into the 83-acre parcel. Walsh is the street which borders the south end of the San Tomas facilities.

Micrographics has been allotted about 11 acres, and the additional 72 acres of pear trees will continue to be farmed until the land is needed for future Memorex growth. The land has been farmed by the Bracher family for four generations—beginning with

the Pioneer Brachers who came to Santa Clara County from Germany in 1886.

Micrographics has grown out of a research effort which began in early 1969 to determine if a workable microfilm formulation could be developed.

The first formulations, although showing promise, were very difficult to work with. In fact, vapors given off during the coating process were so toxic that gas masks had to be worn by those running the experimental coating line. Jack Hounslow, the division's general manager, said that one of the main decisions to continue with the microfilm project hinged on whether or not the toxic coating fumes could be eliminated from the process. They were eliminated with more advanced formulations, and the division began sales this summer.

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ABOUT THE COVER:

This photo was used on the cover of the Micrographics Division's first advertising brochure, and shows the division's full range of products.

Looking over a display of the Micrographics Division's new products are (from left) Howard Earhart, Martha (Hannah) Benepe and Phil Phythian.



Bob Schauer (left) and Bill Hiegel show Rosemary Gareau samples of COM-S Microfilm cartridges.



Jack sees two major objectives for the division. The first is to provide a complete line of supplies for the 1603 Microfilm Printer. This includes three different types of microfilm, processing chemicals, paper and toner, forms-flash slides, film cores, reels, and cassettes. The second objective is to enlarge the divisions development and manufacturing capabilities so that it can expand into the general microfilm market with superior products.

The 1603 was announced to the public last October, and its reception in the marketplace has been excellent. The 1603 is designed to replace, or in some cases supplement, paper printout machines. It is ten times faster than paper line printers; it is quieter and takes less space than line printers; and one 1,000 foot reel of microfilm holds as much information as 24,000 sheets of paper. In addition, a computer operator can make as many copies as he needs from a master reel of microfilm, while line printers

can make a maximum of about six copies per printer.

Sales of the new microfilm products are handled by a special Micrographics sales force within the Information Media Marketing Division. The market Micrographics has entered is known in the industry as COM (computer output microfilm). When the division moves to accomplish its second objective, it will be entering the general microfilm market, or DOM (a Memorex abbreviation meaning "document on to microfilm").

We've already mentioned that the division will market three types of microfilm. One is COM-S Master Print Film. This is a silver film which is used in the 1603 to make the master copy of information printed out by the computer. COM-S comes in light-sealed molded plastic cartridges which contain 500 feet of 16mm. Comdata makes the cartridges for this film at its new plant in Orange County, California.

The second microfilm product is COM-T, a thermally developed duplicate film used on the Memorex 1620 Duplicator. The Duplicator is part of the 1600 series system that produces multiple copies of the original silver film. COM-T is used to make positive microfilm copies from negative ones, or negative copies from positives.

The third type of microfilm is COM-D, which is also used to make duplicate copies of the master film. COM-D is sold in 1,000 foot rolls for making diazo type copies on the 1620 Duplicator. COM-D is different from COM-T in that it is used to make positives from positives and negatives from negatives.

Until the new plant is completed, microfilm is being coated in the Shulman Avenue tape plant, and slitting, rewinding and packaging are done in a leased building nearby.

Microscopic Peaks and Valleys Removed from Tape Surfaces By Confidential Process



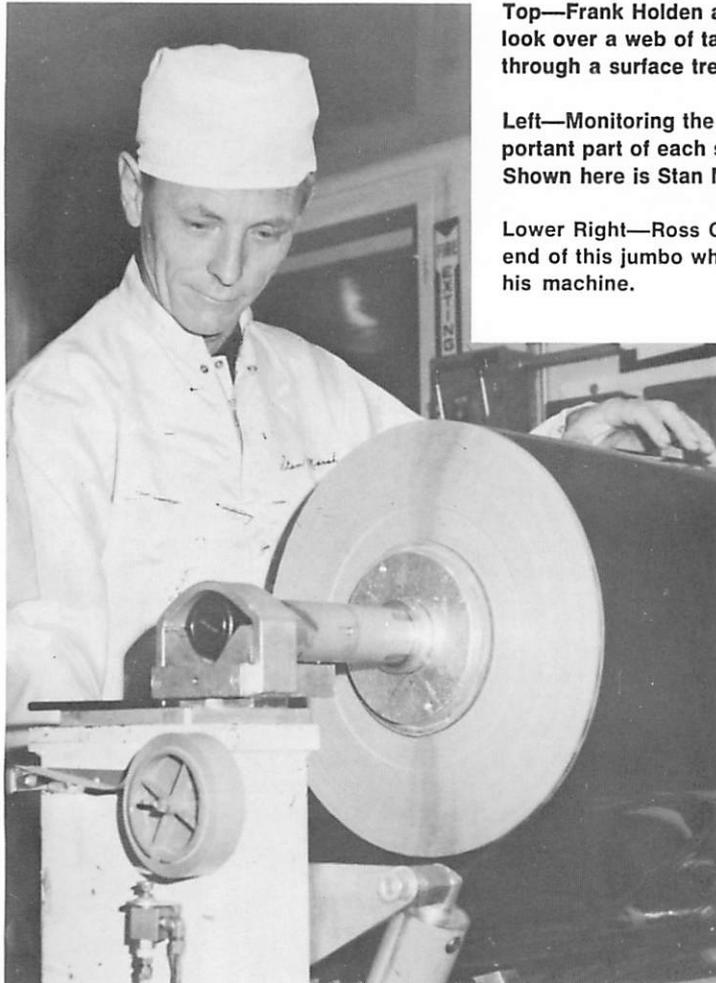
The condition of a tape's recording surface is one of the most important factors in determining its overall recording performance. That's why Precision Magnetic Products has an entire department on Shulman Ave. devoted to surface treating the thousands of miles of tape we produce each year.

The department supervisor, Bill Laughlin, says that surface treating at Memorex is a continuous operation, shutting down only for major holidays and sometimes not even then. The men work on the same schedule as the Mix and Coating Departments. They're on a four week cycle that gives the men a four day weekend each four weeks, seven straight days of work in each cycle, and two 12-hour shifts each four weeks.

Top—Frank Holden and Harry Lombardo look over a web of tape that has just come through a surface treater.

Left—Monitoring the machines is an important part of each surface treater's job. Shown here is Stan Marshall.

Lower Right—Ross Cruz is taping down the end of this jumbo which has just run through his machine.



The goals of surface treating are to improve the recording performance of the tape by allowing more intimate contact between the head and the tape surface, as well as reduce head wear on the recorder. Any microscopic air gap between a recording head and the tape will cause a loss of signal (or dropout). Surface treating is especially important for video tapes because better head-to-tape contact means a sharper picture. A major dropout on a computer tape will cause an error in the information the computer is handling, although this problem is partly minimized by error correction circuitry which is built into computers.

The actual surface treating method used by the department is confidential; however, the basic goal of any method is to either remove some of the microscopic peaks and ridges found on newly coated tapes, or flatten the entire surface level.

Precision equipment applies pressure and heat to iron the entire surface of the tape, and proprietary processes are used to burnish (or polish) the surface.

Memorex's method of surface treatment has been undergoing constant refinement since our first surface treaters were built years ago. But the machines still require operators to make the many precise adjustments required for different types of tapes. The operators also closely monitor

Larry Walker concentrates on some of the paperwork that goes along with his job as a surface treater operator. He's sitting at the console which controls his machine.



Don Serratore readies his machine to run another jumbo. The view is through the top part of his surface treater.



the tape as it passes through their machines, to be sure it is running smoothly. A few seconds of inattention on the operator's part could mean the loss of an entire web (or jumbo) of tape.

Even subtle changes in the condition of their equipment while it is running can have a dramatic effect on the outcome of the tape. For example, in a recent test

an eyelash was placed on a roller in a surface treating machine. After the test one observer commented, "When the tape came through that machine it looked like it had been tooled by a leather maker."

That's why surface treater operators are such an important part of the team which produces our tape products. All the way

from the tape's beginning in the Mix Department until it reaches final packaging, production is a team effort. And at each step along the way, the departments are charged with the responsibility to uphold the company's high quality standards.

On The Move

William Gucker is the new director of Marketing for Memorex Pacific Corporation. Bill's office will be in Taiwan, and he will report to **Richard Renne**, general manager of Memorex Pacific.

Two other new members of the International Group are **Guillermo Vento**, technical manager in the Venezuelan subsidiary, and **Alex Daneman**, a salesman who will work in the Brazilian subsidiary.

Bill Randolph has been assigned to Europe as end user equipment sales manager, reporting to **Bill McCalmont**, managing director, Memorex Europe. Bill Randolph formerly served as director of Marketing at International Group headquarters in Santa Clara. With this change in assignment, **Albert Knoll** is appointed products sales manager with responsibility for Equipment and Information Media products. He will report to **Jack Kramer**, vice president of International.



Randolph



Gucker

Clarke Carey has been appointed director of Manufacturing Technical Staff, announces **Larry Wilson**, vice president of Equipment Group Manufacturing.

Chuck joined the Equipment Group in September of 1969, and most recently was serving as manager of Mechanical Engineering for Storage Products Corporation.

Equipment Group Awarded First Major Government Contract

The U. S. Navy has awarded a contract for the rental of 23 Memorex 3660 Disc Storage Systems to replace IBM equipment currently in use. The contract represents the first major government commitment to Memorex equipment and is valued at \$3.7 million.

Garrett Fitzgibbons, vice president of Marketing, acknowledges that the contract is an important one for the Equipment Group. "It goes a long way toward establishing Memorex as a significant competitor in the peripheral equipment business.

Garrett also feels that the Navy contract gives us a "foot in the door" for more government business on several counts. One is that the Navy was impressed with the way our bid package was submitted. (The government's bidding requirements fill a small book, and the regulations set forth must be followed to the letter in order to qualify.) Because our package fulfilled all the requirements, it can be used as a model for future bids. In addition, the government will now have first hand information about the effectiveness of our equipment.

One of the Navy requirements was that all bids be submitted no later than June 9 and, since Equipment Group Marketing got the assignment on June 1, a lot of people had to work very fast. Ed Faber, director of Marketing Services, assigned Bob Francis, manager of Administration in Marketing, responsibility for pulling the package together and getting it to Washington before the deadline.

Among the people supplying information for the bid were Ed Faber and Terry Brown, who

Preparing the bid which won a \$3.7 million Navy contract was a big job, as these people can tell you. Bob Francis coordinated the project, gathering information from several sources; while Sandy Moore (foreground), Lorna Buck (center) and Jackie Ruiz (right) typed the comprehensive proposal.



wrote the introductory section about Memorex (Terry also designed artwork for the divider sections); Ray Vales, manager of Pricing, and Jim Moore, who worked out the complicated financial data; Jim Tyson, manager of Field Support Operations, who supplied information pertaining to installation and servicing of the equipment; and Sandy Moore, Lorna Buck and Jackie Ruiz, who typed the package's three main sections.

On Sunday, June 7, Bob carried a huge cardboard box containing several copies of the bid package onto a jet bound for Wash-

ington. "I wasn't about to let it out of my sight," he says. "The box rode all the way on the seat beside me."

John L. Sullivan, the Equipment Group's eastern regional sales manager, and Bert Rosecan, MEG federal salesman, took over once the package reached Washington. They not only got it to the Navy a day early, they followed up with hours of negotiations which led to the bid's acceptance.

News Briefs

The Information Media Group last month announced a new modular computer tape storage system. The system allows our customers to increase their storage capacity when adding to their tape libraries.

The basis of the system is a modular unit which is available in a thinline canister style holding 21 reels, or a tapesal style holding 30 reels. Individual units interlock to form a rigid, functional storage rack. The system may be installed six or seven rows high and may be arranged back-to-back or side-by-side.

All system components are finished in matte, baked grey enamel. Each unit is also supplied with all hardware required to interlock the system.

The Consumer Products Building is completed and production of Educational Tape (voice quality tape on reels) and audio tape cassettes is already underway.

The building, located next to Disc Pack at the end of Shulman Avenue, is designed especially for cassette production. Although Production and Engineering have already moved in, Marketing, Administration and Technical Service offices will remain in leased offices on De La Cruz Blvd. (in Santa Clara) for the present.

Consumer Products will be the subject of a forthcoming feature article in *Intercom*.