

Mueller Service Lines

AUGUST 1977

NEWS ABOUT MUELLER MARKETS, PLANTS, PRODUCTS, PERFORMANCE, AND PEOPLE

Albertville people help Mueller's new highly automated plant face a challenge—and meet it

Take a modern foundry and machine shop with the latest in modern equipment, using the most up-to-date technology and set it down in an area that, until recently, was almost totally non-industrial.

At first glance, such a move would appear questionable, to say the least. But that's exactly what Mueller Co. did when it built its Albertville, Alabama, plant in 1976 to produce CENTURION® fire hydrants.

Company officials were aware of the apparent inconsistency when they chose the Albertville location and invested more than \$15 million in a plant there. They were aware of other things, as well, and one of these was important to the basic idea behind the "Mueller Margin."

Why did Mueller "go South?"

The Sand Mountain region where Albertville is located is in northeastern Alabama. Huntsville, home of the famous Redstone arsenal, lies approximately 40 miles north, and Gadsden 20 miles south. Gunter Lake, a vast TVA project is nearby, surrounded by scenic wooded hills. But the appeal of this area for Mueller Co. was the availability of land, abundance of power, good transportation, the accessibility of materials . . . and most important, *its people*.



The people of Sand Mountain held the key

Any talk about the "Mueller Margin" has to center on the people who manufacture Mueller products. During their early visits to the Albertville area, company officials learned an important fact that helped them decide to locate there.



The people of the region were eager for new industry and the opportunities it would bring. They proved this by their spirit of cooperation and desire to make the Mueller operation a success.

In the words of Lloyd Darnell, plant manager, "Although they may have limited experience in heavy industry, they do have an eagerness to learn and are not afraid of hard work. The people here also show a dedication to their jobs and a strong sense of company loyalty."

"These assets have proven valuable because they helped shorten the time needed to train practically a whole new staff in the use of the complex equipment we operate."

He pointed out that this attitude plays a big part in the pride the employees take in their work, and said he is extremely pleased with their performance.

"Many now acquiring new skills will become long-time employees and the mainstay of our operations here," he stated.

Modern machinery needs skilled hands to operate it

The Albertville plant provided Mueller Co. an ideal opportunity to develop a plant around a major product — the CENTURION fire hydrant.

Most of the equipment and systems have been designed specifically to build the CENTURION hydrant. Skilled hands, however, must set up, run and check on

the machines. Further skills are needed to maintain the system of quality control throughout the plant. Meeting production schedules, too, requires planning and coordination. These are all people-dependent jobs.

Mueller engineers designed high performance factors into the CENTURION fire hydrant. They also included other quality features

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Mueller Co. pays over \$1 million in employee medical benefits and premiums in 1976

Did you realize your income is more than just what you get in your paycheck? Part of your compensation is through life insurance, a pension plan and a comprehensive medical plan — paid 100% by Mueller Co.

In 1976 the Mueller Co. Medical Plan, or Group Benefits Plan as it is commonly known, paid over \$1 million in premiums and di-

rect benefits for employees. That's over 2200 claims averaging over \$400 each. And this year it will pay even more with the improvements in employee benefits and the increase in nationwide medical costs. According to *National Underwriters' magazine*, in 1976 total health

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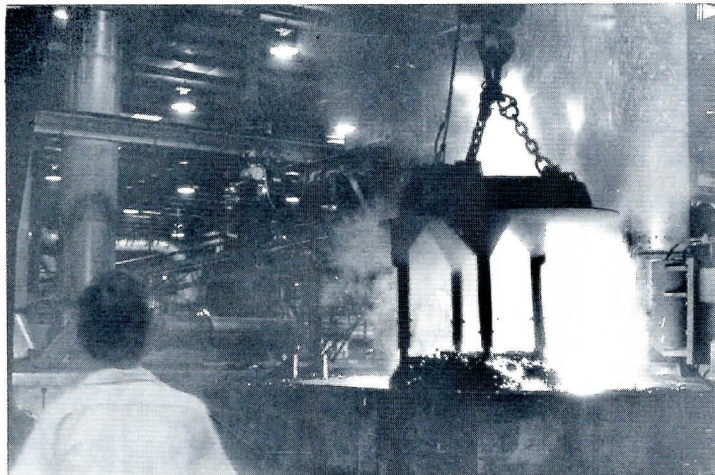
Albertville Continued

to maintain an extra margin of value. But the performance of the people manufacturing it really decides whether those features will work and make that difference known as the "Mueller Margin." "That performance," said Darnell, "is evident in the character of the people here in Albertville."

Steel rails converted to fire hydrants

The furnace operator, crane operator and metal technicians are the key people involved in melting down the scrap steel rails used to make the fire hydrant barrels.

The furnace operator maintains the temperature of the three electric induction furnaces and oversees the charging operation. He works with the operator of the ten-ton gantry crane who uses a magnetic lift to transfer the rails from a storage pile into the furnaces. To make certain each receives the correct charge, he carefully controls the weight of the rails being fed into each furnace.



Technicians in the nearby metal control laboratory keep close watch over the exact content of metal, its weight and temperature. The care they take at this stage is important because it determines the basic composition of the metal in the hydrant and its ability to handle the pressures and other demands made upon it.

Sand preparation is an important operation

Sand used to make the molds is mixed with a bonding agent to assure its consistency and "moldability." This is done in a "muller" or mixing machine. Although the muller eliminates

much of the human involvement, its proper operation is critical to the quality of the finished molds. And the muller operator must carefully schedule it to assure a ready supply of properly mixed sand.

Computer controls the molding operations

The molds are made in a machine run by a programmable controller. But the people responsible for the operation of this complex system do more than push the right buttons at the right time. They must continually examine the machine's output; checking the "cope" or top half of the mold, and the "drag" or bottom half to see that they are free from flaws.

During the core-setting operation, careful attention is demanded to see that the cores (sand inserts placed inside the mold to provide for the hollow barrel of the hydrant) are correctly positioned for uniform casting thickness.

An operator using an overhead crane transfers the molten metal from the furnace and pours it

into the molds. He must take care during this operation to see that the proper amount of metal is poured at the proper rate into the molds. Following the pour, the molds are cooled and the castings removed by breaking away the sand. The operators rely on their experience to spot any flaws in the cast metal. The castings are next conveyed to a shot-blast machine for cleaning, then sent to the grinding department.

Their job is a "daily grind"

Grinding department workers use a great deal of judgment and skill in operating their hand-ma-

nipulated grinders to remove parting lines and other casting irregularities from the barrels.

The finished appearance of the hydrants depends on how well the workers in this department do their jobs.

Machines were specially designed for Mueller

A machine operator handles the milling of the barrel flange with an NC (numerical controlled) machine that was specially built for this purpose. It mills the face of the flange and drills six holes (in one operation) on each end of the hydrant top section.

Other specially designed NC machines bore and thread nozzle holes in the upper hydrant barrel and machine the outlet on the shoe.

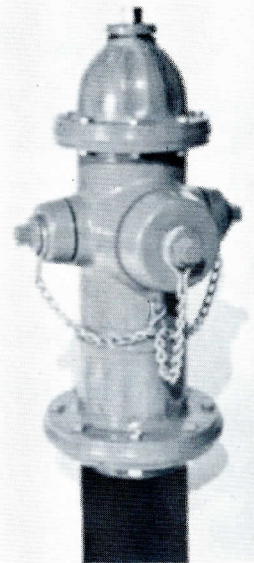
Machines do the work, but workers control the machines

The brass castings used on CENTURION fire hydrants are made in the Decatur, Illinois, plant and shipped in rough form to Albertville where they are machined to exact tolerances. Here again, NC machines are used. Although such machines eliminate the hand-setting of machine functions formerly required, the operators must exercise considerable skill because they not only load and unload the brass castings, but oversee the machine's operations and program it for any changes in the work it must do.

Customers can choose from a rainbow of colors

The paint operators, using airless spray guns in a water wash booth, put the finishing touches on the hydrant barrels and other painted parts. Even though they use the latest equipment, much experience is required to apply the paint evenly. The quality of the paint job must match the overall quality of the hydrant itself. The customer sees the paint and not the iron beneath it.

Customers may order from 132 color combinations, but most of the hydrants leaving the plant are finished in a traditional red.



Assembly stations put it all together

The final operation is putting the pieces together to make a finished hydrant. Assembly stations are manned by three-man crews. This work calls for speed and accuracy in making certain all the right fittings and parts are in the right places.

The assemblers also lubricate the stem, and torque the bolts holding the hydrant's moving parts to assure a water-tight fit and easy operation.

Quality control helps assure the "Mueller Margin"

Testing and inspection are very important in the production of CENTURION hydrants. These are conducted by trained inspectors throughout the manufacturing process. They include hourly iron sampling, inspection and control of the sand, the molding operation and continuous on-floor inspection of the grinding, machining and assembly operations. The final quality check is a 100% pressure test of the finished hydrant in both the open and closed positions to assure a perfect fit of the main valve and seals.

Maintenance keeps the wheels turning

The maintenance department is staffed by skilled machinists, mechanics, electricians and others whose job is to keep everything in good repair and proper operating condition.

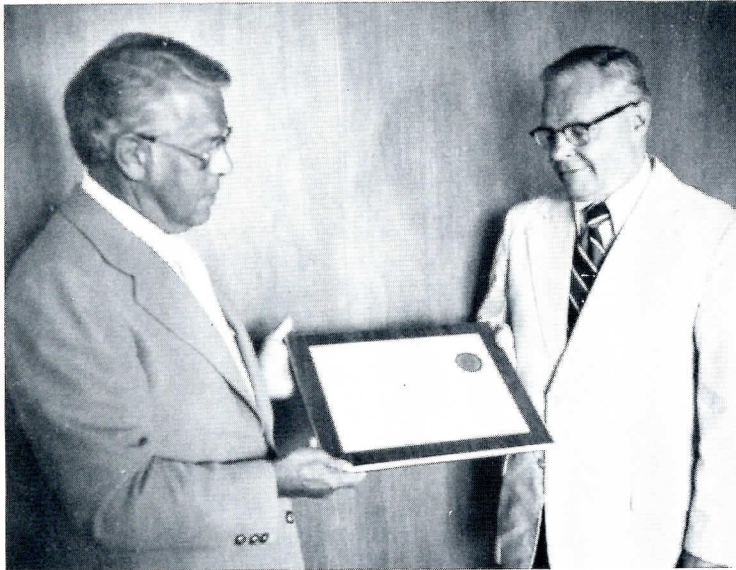
They rebuild or manufacture machine parts when necessary to maintain plant equipment.

Continued

Strictly Personal Decatur

Don Bathe

NEWS ABOUT MUELLER CO. EMPLOYEES AND THEIR FAMILIES



**JOHN DENNIS
RECEIVES AWARD**

John Dennis has been designated a Certified Graphics Communication Manager by the In-Plant Printing Management Association. This new certification program is designed to recognize those from the profession who meet requisite standards of knowledge, experience and professionalism in managing an in-plant graphics department.

In receiving this award, Mr. Dennis has had to provide evidence of his ability to render a professional standard of performance to his company; an ability to keep abreast of the state of the art in the rapidly expanding graphics communication field; and his competence as a manager and technician in the graphics discipline. His application and supporting documentation was studied by the Certification Board and judged to meet all of these requirements.

Mr. Dennis also holds the distinction of being among the first fifty recipients of this designation.

Mr. Robert Mallow was asked to make the presentation on behalf of In-Plant Printing Management Association.

LEE BEST

JOINS MUELLER CO.

Lee Best joined Mueller Co. in the industrial engineering department.

Lee, a native of Edinburg, Illinois, was a 1977 graduate from Millikin University with a B.S. degree in industrial engineering.

RETIREMENTS

Leonard W. Eckhardt, milling machine operator, Dept. 80, 30 years, 10 months and 14 days, June 10, 1977 (80 plan).

Violet V. Sargent, head company nurse at Decatur, 18 years, 29 days, June 24, 1977.

Samuel M. Beavers, floor molder, Dept. 10, 26 years, 9 months and 9 days, June 24, 1977 (disability).

Wesley W. Graven, cut off saw operator, Dept. 70, 16 years, 2 months and 5 days, May 31, 1977 (80 plan).

Wesley J. Brown, brass body facer, Dept. 80, 28 years, 2 months and 28 days, June 3, 1977 (80 plan).

Virgil R. Morrison, #5 turret lathe operator, Dept. 80, 45 years, 10 months and 26 days, May 26, 1977.

Kenneth Armstrong, master crib and tool order clerk, Dept. 33, 13 years and 22 days, May 14, 1977.

William A. Mueller, cost department supervisor, 41 years, 6 months and 23 days, May 23, 1977.

Service

Awards

DECATUR

- 10 years: Mary Ann Lutes
Herbert L. Gibson
Irvin T. Davis
- 20 years: Harold B. McLaughlin
Arthur A. Hoehn
Harold T. Small
- 30 years: William Leake
Wilbur W. Shasteen
Robert L. Finch
Levi W. Green
Richard L. Ferrill
Dale E. Spires

SPARKS

- 10 years: Sandy Polston

OUTSIDE SALES

- 10 years: John W. D'Angelo

BOWLING LEAGUE FINISHES SEASON

League Champs

- Adams Clamp
- T. McGeorge
- F. Erlenbush
- J. Keck
- M. Hardy
- B. Vaughn
- B. Nelson

GROUNDS AND PARKING AREAS

Have you noticed our grounds and parking areas are looking better due to the daily pickup of papers, cans, bottles, etc.

We want to maintain attractive grounds for our employees, neighbors and community.

You can help by using the trash cans provided in the parking areas.

GOLDEN ANNIVERSARY

Mr. & Mrs. Floyd Walton of Niantic celebrated their golden wedding anniversary on Sunday, June 25 with an open house at the Holiday Inn of Decatur.

Floyd (Curly) was with the Mueller Co. for 44 yrs and 2 months, retiring in 1970. He and the former Mae Brule were married on June 25, 1927 in Decatur.

They are parents of nine children - Donald of San Diego, Calif., Harold K. of Decatur, Kenneth of Eureka, Rodney of Payson, Mrs. Devonna (Cecil) Snow of Decatur, Mrs. Winona (Roger) Himstedt of Big Rock, Ill., Mrs. Kathleen Wood of Phoenix, Arizona, Mrs. June (Charles) Fried of Lincoln, Mrs. Jeanine (John) Shively of Morton, Ill. They have 23 grandchildren and 5 great grandchildren.

Since retirement, Floyd & Mae have travelled extensively. Besides travel in practically every state in the U.S. and in Canada and parts of Mexico, they have been to the Holy Land, to Central & Southern Europe and to the Scandanavian Countries.

RETIREE'S



Wesley Brown, right, receives gift from Fred Fyke. Wesley plans to do some traveling and seeing the country visiting with his children on the way.



Kenneth Armstrong gives his farewell to fellow workers



Virgil Morrison, right receives check from president Harlan White



Wesley Wayne Graven, right, receives his gift from Steve Holsapple as co-workers look on.



Vi Sargent is surrounded by the fellows at the farewell party in the personnel department.



Sam Beavers, center, stops to have his picture taken with photogenic foremen Dale Spires, left and Carl Schuman



Bill Mueller was in for a big surprise with a card and TV from everyone. He and Bill Leake seem to have something going as Maxine Griffith and Delores Burton look on.

FAMILIAR FACES IN NEW PLACES

Melvin C. Whittington, formerly an inspector has been promoted to quality control technician.

J. D. Giles, formerly Adams Clamp fabricator, has been promoted to the position of assistant specialty production control manager.

Clarence Berner has been assigned brass foundry foreman.

Darrell Church has been assigned assistant iron foundry foreman.

Verlyn Burnett has been assigned assistant brass foundry foreman.

Sparks By Bea Carson

A "May Day Picnic" had been scheduled two times but the weather did not cooperate. The picnic finally took place at Bea Carson's on June 4 and with a BYOF (bring your own food) party. Horseshoes, Bocchi Ball, Darts and various other activities had been lined up. Everyone had a good time.

Summer finally arrived in Reno A temperature of 99° on June 4 set an all-time record high for that date.

As of June 1st, Richard Donnelly was promoted from "hourly" to "monthly" payroll. After six months on the job he has proven his ability and adaptability. Congratulations, from all of us, Rich. Glad to have you with us.

Evelyn Randolph, Sales, has announced that she and her husband are expecting their first child sometime in December of this year. (Incidentally, her insurance became effective on March 1st - pretty good planning.)

The "Mueller Company Bowling League" was formed recently and had its first night of bowling on May 4. Out of 23 employees, 19 signed up to bowl including spouses, the results were as follows;

High Team Series - Scratch - Team #3 - 1662

High Team Game - Scratch - Team #3 - 594

High Team Series - HDCP - Team #6 - 2244

High Team Game - HDCP - Team #6 - 799

Men

D. Trigueiro	476
R. Donnelly	178
L. Kohls	572
A. Ash	215

Women

S. Mc Graw	436
B. Carson	178
E. Randolph	592
A. Woodring	232

High Team Series - Scratch: #3 The Sleepers

Handicap: #1 Thunderballs

High Team Game Scratch: #3 The Sleepers

Handicap: #1 Thunderballs

Individual:

High Series - Scratch: Dwight Trigueiro - 609

Bea Carson - 541

High Series HDCP:

Rich Donnelly 685

Sandy Albot - 681

High Game - Scratch:

Bob Randolph - 211

Michelle Trigueiro - 182

High Game - HDCP:

Ron Hood - 246

Pati Stoddard - 245

Presently there are three teams tied for first place with 14 wins and 10 losses; two teams tied for second place with 13 wins and 11 losses; two teams tied for third place with 11 wins and 13 losses - in other words, just three games difference between first and seventh place. Really a great league and lots of fun.

Although serving as trouble shooters, much of the work is preventive maintenance . . . correcting potential trouble sources before problems occur.

The "Mueller Margin" — it's alive and well at Albertville

Maintaining the extra margin of quality that makes the difference between Mueller Co. products and those of its competitors is important in the operations at Albertville. Plant Manager Darnell's positive comments about the efforts and attitudes of his people show that the Mueller Margin *is* being maintained.

This quality difference becomes more critical each year as the competition in the field of water and gas distribution equipment grows. A few years ago there was only a short list of firms sharing this field. Today there are more than fifty, and the number is growing.

Many offer products at lower costs and faster service. But as long as the quality edge known as the "Mueller Margin" is maintained and Mueller Co. products remain in demand, the company operates at a profit and everyone shares the benefits.□



The Housing Scene: favorable but some questions need answering

Housing starts are up and the experts say they're going to keep on rising. But along with rising starts, costs have been rising even faster. This raises an interesting question: "How can growing numbers of people afford homes at today's inflated prices?"

The housing market has an important affect on Mueller Co's business. When construction goes up, so do opportunities to sell products used to provide water and gas service. When it goes down, so does the size of our market. So let's dig behind the headlines to get at some of the facts.

Who's buying all those expensive homes?

Marsh Trimble, publisher of *Professional Builder & Apartment Business* magazine pulls back the curtain to reveal some of the answers to this mystery of how people can afford to pay \$50,000 for yesterday's \$20,000 home.

"Headlines in the news media," he says in an editorial in his magazine, "distort the cost and availability of housing to the Ameri-

can public." He cites this example: "Cost of Average New Home Beyond Average American Buyer." But, Mr. Trimble asks, "what is average?" He attacks the "average home" myth with this reasoning: "Twenty five homes that cost \$45,000 each and one that costs \$200,000 gives us an average of \$50,961. However, 25 of the homes cost considerably less than the average and one costs considerably more. So averages don't mean a thing."

Laying the "median" myth to rest is easy, too

Trimble points out that medians as a measure of cost are not much better than averages. "If, for example," he says, "the headline reads that the 'median' cost of a new home is \$45,000, it doesn't mean that *all* (or even most) homes are priced at this figure, but only that half are priced below it while half are priced above it. The buyer, as a result, may have a wide selection of homes available with prices beginning at \$25,000 or \$30,000."

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care costs in the U.S. topped \$140 billion — an increase of 13% over the previous year.

What does all this mean to you? It means an extra margin of security from medical bills for you

and your family. It's another part of the "Mueller Margin," a part you benefit from directly as Mueller Co. continues to prosper. It puts extra money in your paycheck. You may not see it — but it's there.□

MUELLER CO. MEDICAL PLAN INCOME AND EXPENDITURES YEAR ENDED SEPTEMBER 30, 1976

RECEIPTS:

Payments by Mueller Co. \$1,036,182

DISBURSEMENTS:

Payments for Benefits:

Weekly Indemnity Payments \$ 114,122

Doctors, Hospitals and

Other Medical Costs 785,931

Total Benefits Paid \$ 900,053

Insurance Premiums Paid to Republic

National Life Insurance Co. for

Life and Accidental Death and

Dismemberment Coverages 102,707

Service Fee to Self-Insurers

Service, Inc. 33,422

Total Disbursements \$1,036,182

The above statement shows only cash receipts and payments. It does not include amounts for claims in process at the end of the year. Payments for benefits are paid as claims are submitted and approved. Insurance premiums are paid monthly. The plan does not operate from an established fund.

There were no party-in-interest transactions, no loans, obligations or leases in default. The statement of receipts and disbursements includes all transactions.

Those participating in the plan and their beneficiaries can obtain a copy of the

plan's annual report filed with the Internal Revenue Service and the Department of Labor for \$1.00 from the plant personnel department. A copy of the report may be examined at any of the company's personnel offices without charge.

Booklets describing the coverages and benefits in detail have previously been distributed to all employees. Extra copies are available without charge from any of the company's personnel offices.

Other documents are available from the plan administrator by specific request.

Plan Administrator

Robert W. Mallow, Secretary-Treasurer
Mueller Co.
500 West Eldorado St.
Decatur, Illinois 62525
Telephone 217-423-4471

The "average" American is in a buying position

Trimble also reminds us that family income is up; that more wives are working; that, in fact, the average American is better able to purchase a home today than at almost any time in history. This is borne out in the ac-

companying chart that shows home ownership at an all-time high.

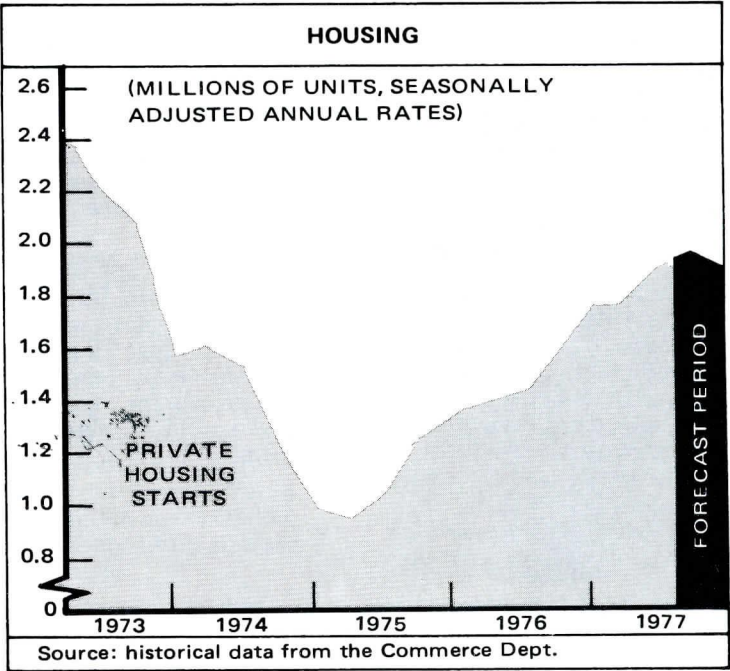
Winding up his story, Trimble says, "... the industry built 1,163,000 single family units in 1976, the third best year in history. And we'll build more in 1977. So some things must be right ... or at least not too bad ... in the housing industry." □

RATIO OF FAMILY INCOME TO HOME COST

Year	Median Sales Price	Annual Family Income	Ratio: Price To Income
1900	\$ 4,881	\$ 490	9.8
1910	5,337	630	8.5
1920	6,296	1,489	4.2
1930	7,146	1,360	5.2
1940	6,558	1,300	5.0
1950	9,446	3,319	2.8
1960	16,652	5,620	2.9
1970	23,400	9,867	2.3
1975	39,300	13,991	2.8

PERCENT OF OWNER OCCUPIED DWELLINGS

Year	Percent	Year	Percent
1900	46.7%	1950	55.0%
1910	45.9%	1960	61.9%
1920	45.6%	1970	62.9%
1930	47.8%	1975	64.7%
1940	43.6%		



Housing construction activity continued its excellent performance and gave signs that 1977 will be one of the nation's best housing production years.

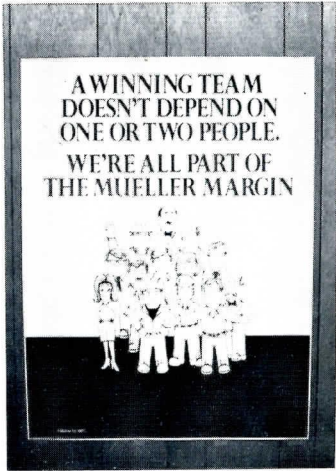
YOU are an important member of the Mueller team!

Teamwork! It's needed for success in sports, sailing a ship, making a movie, performing an operation, climbing a mountain and almost anything else you can think of. And that includes making water and gas distribution equipment that meets the demands of today's tough competition.

No matter how small or big your job and its responsibilities, everyone who works in the factory, office or sales force is an important member of the Mueller team.

Your job *does* count. But you can't do it alone. No one else can, either. That's why pulling

together as a team is the only way to make the "Mueller Margin" mean what it's supposed to: the extra margin of quality that helps make Mueller the No. 1 name in the market today. □



MUELLER® CO. / DECATUR, ILL. 62525

Factories at Decatur, Ill., Chattanooga, Tenn., Albertville, Ala.
MUELLER LIMITED, Sarnia, Ont., St. Jerome Que., Canada.
Sales office and Western Service Center, Sparks, Nevada.

serving the water and gas industries since 1857