



DIE CASTINGS

the
shape of
things to
come

TWIN CITY DIE CASTINGS COMPANY

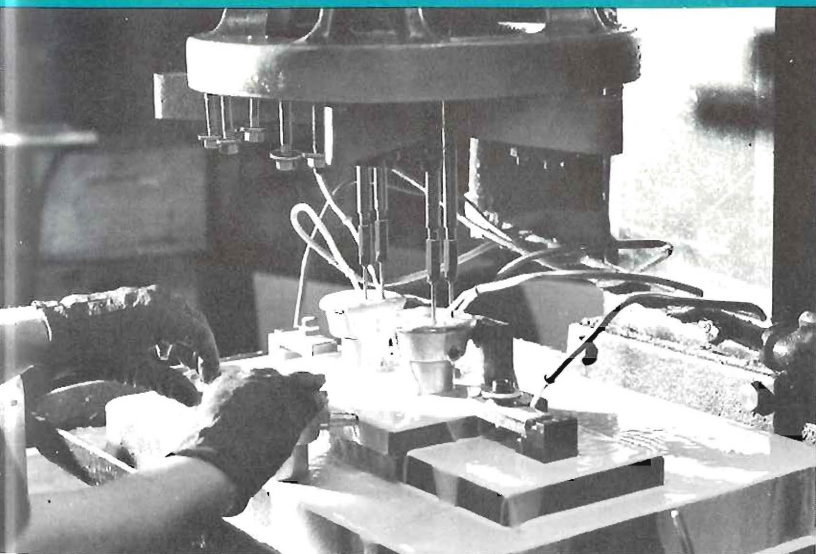
Talmage & 33rd Avenue Southeast
Minneapolis, Minnesota 55414



▲ The die maker has everything he needs to do the job right; good drawings, the best equipment, hard-won skills. Tooling schedules will be met. When the critical time for assembling and approving the die arrives, the superintendent and the die maker can work together to assure that all parts are exactly as specified.

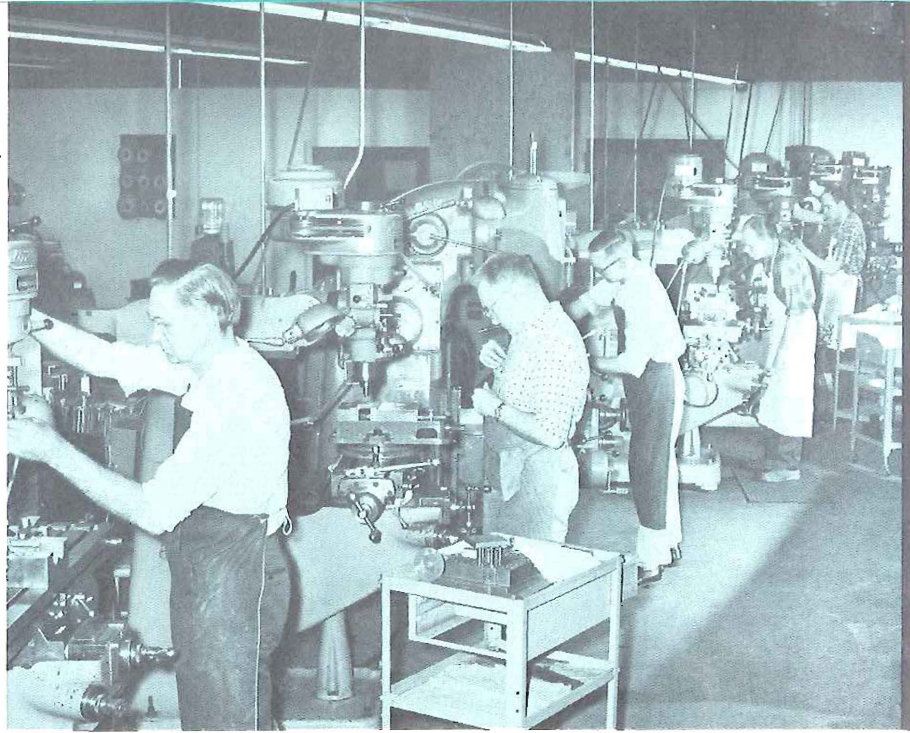


▲ When the Tool and Die Shop superintendent approves the assembly of the new die, it goes to the Casting Shop to be set-up in the proper die-casting machine for production of the all-important sample casting.



▲ As the secondary operations of trimming, tapping and machining get under way, constant vigilance is maintained to assure that approved procedures are applied. Twin City can give the customer a finished part, if so desired, or can perform any combination of operations the customer wants.

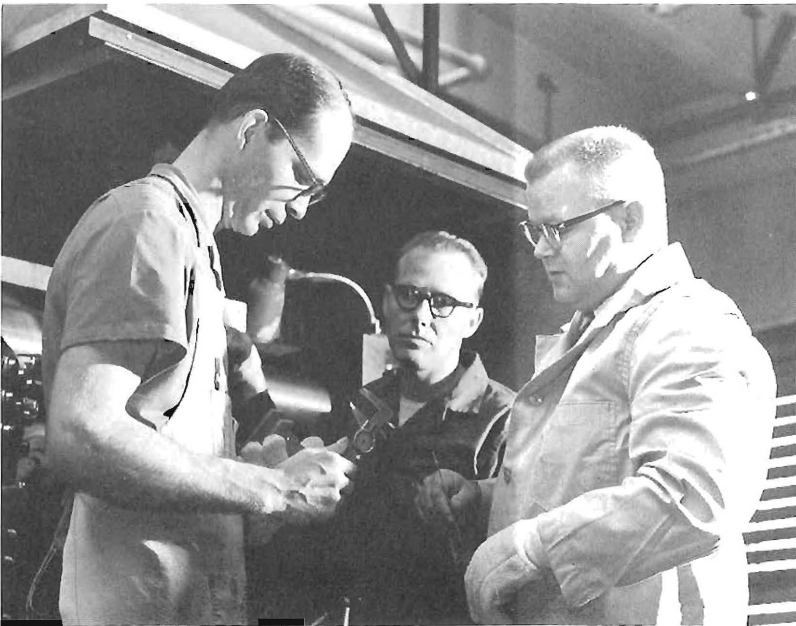
Precision equipment lets skilled hands perform to the best of their ability.



TOOL AND DIE SHOP

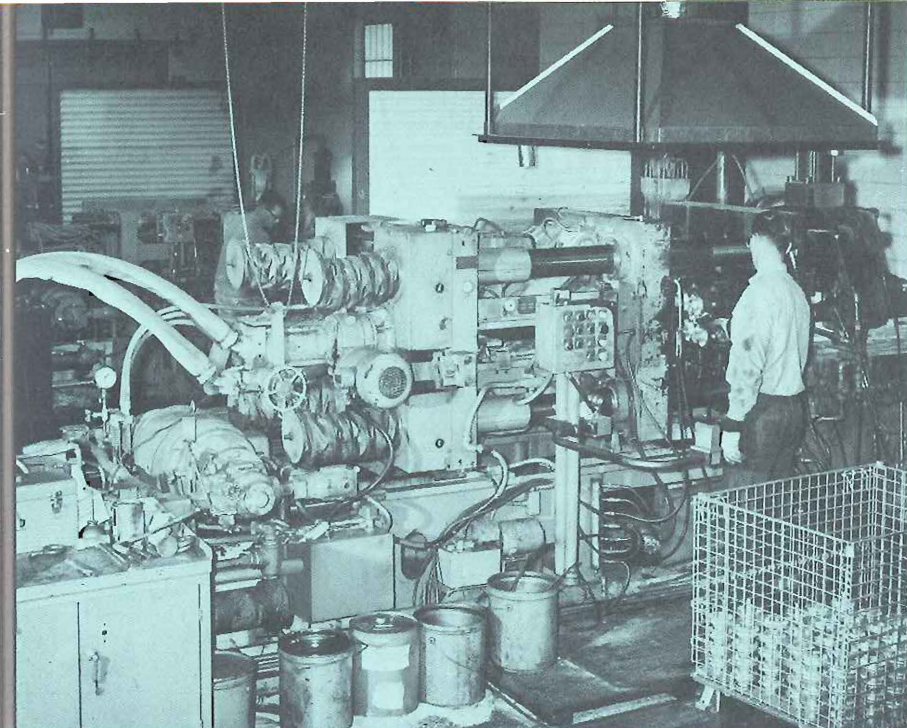
The Tool and Die Shop at Twin City is fully equipped, adequately staffed with competent craftsmen and is laid out for efficient production. The typical Twin City die maker is a long-time employee who takes personal pride in his work.

Die maker and superintendent check first piece out of the new mold.



Twin City die makers know that close attention to finishing details gives the customer more for his dollar, in terms of accuracy in the part and life of tooling. Their desire to assure this degree of perfection is seen in the fact that the die maker is almost always at the casting machine when the first sample part is made.

Tool and Die Shop superintendent discusses the problems of die design, as related to part needs, in daily meetings with the Production superintendent. There is no "Ivory Tower" here; he knows that, if he gives the production people something that is hard to live with, he has to live with *them*, too. This close relationship pays off for the customer in many ways.



High-speed, multiple-cavity production meets customers' needs.

THE CASTING SHOP

Operating in new facilities designed to permit orderly and efficient flow of raw materials and parts, the Casting Shop does its part to achieve the high level of quality that Twin City Die Castings strives to maintain.

With the development of better alloys and better equipment and technology for handling them, aluminum castings have become the fastest growing part of the die casting industry. Twin City has kept pace with this expansion.

The latest addition to Twin City's aluminum casting line is a new "breakdown" furnace that holds up to 9,500 pounds of molten aluminum and is served by a full-time operator who attends to the hot-charging of die casting machines. Hot-charging eliminates many of the problems ordinarily associated with aluminum die casting.

Temperatures remain in a constant range, assuring a higher level of purity in the alloy. The operator has fewer interruptions and can maintain a better rhythm of operation, which allows for closer inspection and more even temperature of the die.

Zinc die castings, from tiny electronic components up to heavy hydraulic valve parts, have been a specialty of Twin City Die Castings from their very beginnings. They continue to represent a large and valued portion of the business.

In spite of continuing improvements in equipment, there are many variables in die casting which tax the ability of the operator. Twin City operators are the equal of any in the industry. Most of them have worked in other departments and know their requirements. There is no rivalry between departments at Twin City and job turnover is remarkably low.

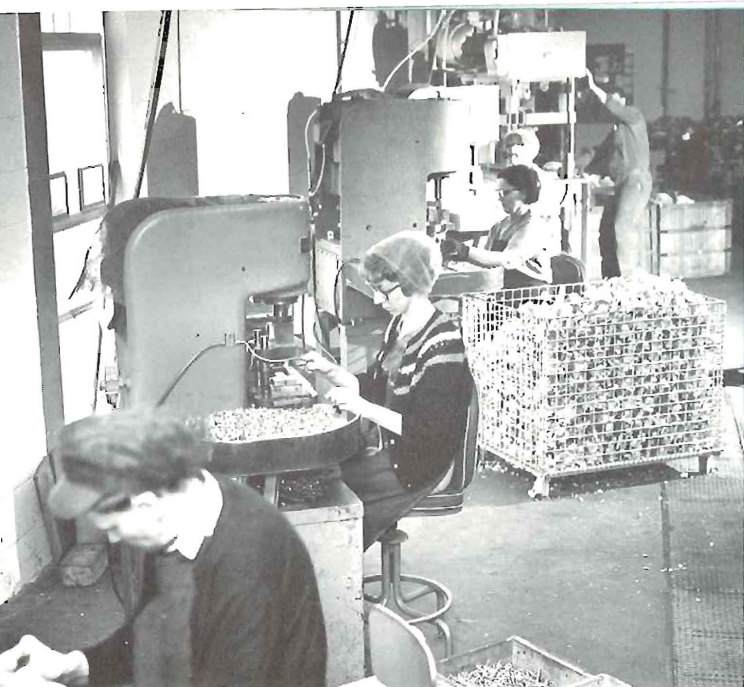


Intense, controlled heat meets the eye as furnace door opens.



Orderly arrangement permits smoother operation.





Trimming is an important first step.

TRIMMING AND SECONDARY OPERATIONS

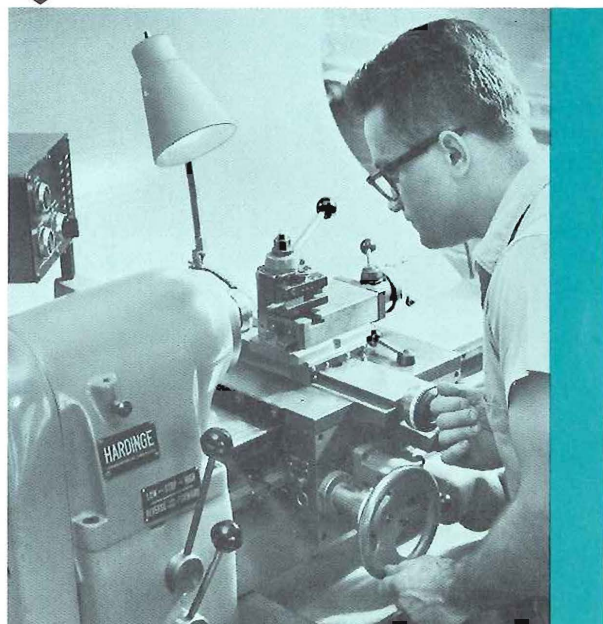
While the Tool and Die Shop superintendent was scrutinizing the prints from the viewpoint of drafts, undercuts, gating, ejector pins and such features, the production superintendent was giving them equally intent study to see what his secondary operation people would be called on to contribute.

Inside threads, outside threads, removal of flash, tumbling, machining of matching flats . . . these are among the things for which he must be prepared when the production run starts. Much care is taken to devise setups with fixed dimensions that will not fluctuate.

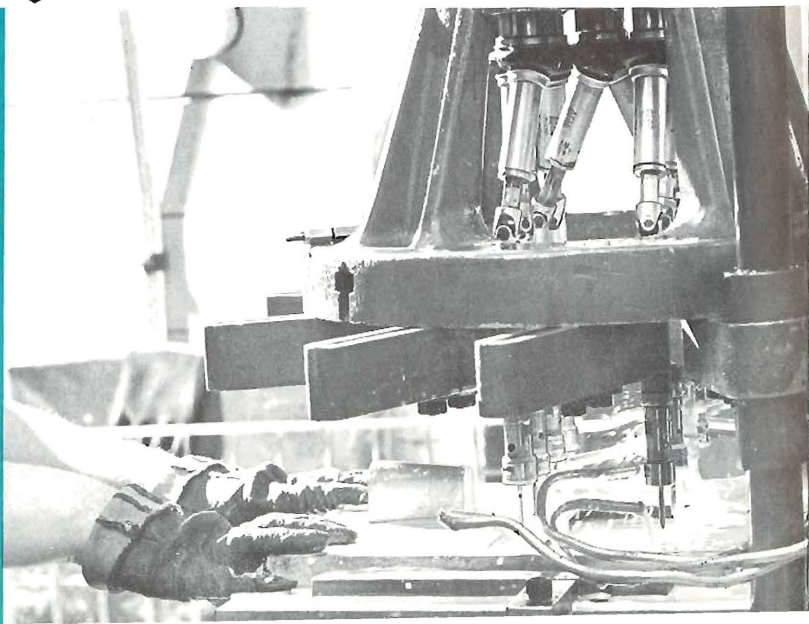
Inspection is geared to the needs of the job.

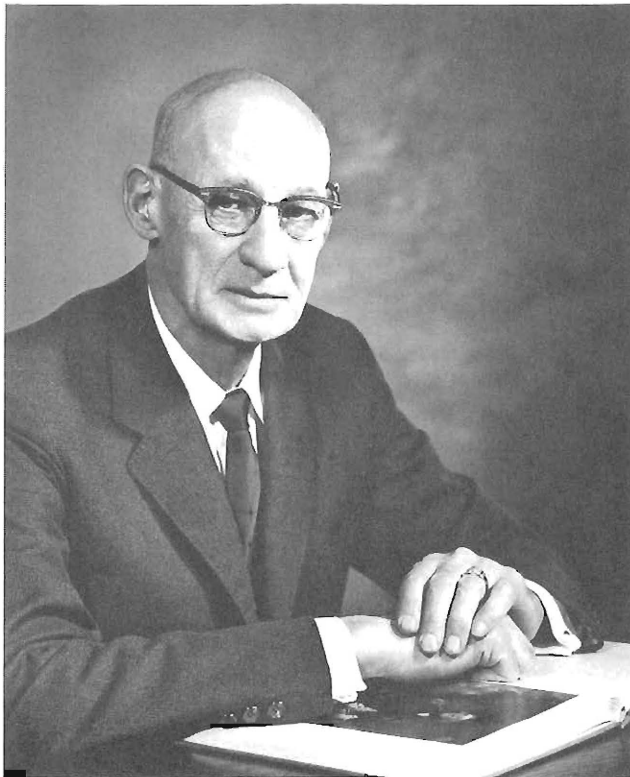
Intricate drilling and tapping jigs demonstrate the flexibility with which Twin City approaches the setup for secondary operations. Production rates are developed to stay ahead of the customer's needs.

Special parts require special techniques.



Eight-spindle unit taps precisely to drawing.





Charles G. Adams
founder and president

TWIN CITY DIE CASTINGS COMPANY

Leading die caster in its area.

Fully equipped.

Competently staffed.

Ready to serve you.

Member of American Die Casting Institute.

Licensed under Certified Zinc Alloy Plan.

Die Casting Research Foundation participant.



**A functional plant—
planned to produce die castings**

- 1 Aluminum and Zinc Casting
- 2 Tool and Die Shop
- 3 Production Offices
- 4 Trimming
- 5 Secondary Operations
- 6 Quality Control
- 7 Shipping and Receiving
- 8 Die Storage
- 9 Tumbling
- 10 Offices

