



TOOLING & PRECISION MACHINED COMPONENTS

GASBARRE PRESS DIVISION

Mechanical Compacting & Sizing Presses
DuBois, PA

BEST HYDRAULIC PRESS

Hydraulic Compacting & Sizing Presses
DuBois, PA

PTX-PENTRONIX

High Speed Compacting Presses
Taylor, MI

SIMAC LTD.

Isostatic Presses
Rugby, England

SINTERITE PRODUCTS

Continuous Belt Sintering Furnaces
St. Marys, PA

C.I. HAYES

High Temperature Furnaces
Cranston, RI

J.L. BECKER

Heat Treating Equipment and Components
Plymouth, MI

McKEE CARBIDE TOOL

Precision Machined Components
Olanta, PA

MAJOR GAUGE & TOOL

Precision Machined Components
Livonia, MI

QUALITY SYSTEMS AND WORKMANSHIP

McKee Carbide Tool encourages the continuous quality improvements our customers expect. To optimize quality and minimize costs, we actively track metrics such as rework, lot acceptance, and on-time performance. Using Total Quality Management (TQM) methods, we follow a team approach to improving overall performance through proactive measures such as preventive maintenance and equipment upgrades.

Experience and training count when providing precision machining services. An ongoing training and qualification program provides cross-training on various machine tools, hones skills, and assures manufacturing flexibility and agility.

A FOUNDATION OF CUSTOMER SERVICE

McKee Carbide Tool was formed in 1975 to provide precision tooling and machining services. The company established a solid reputation for providing innovative services, with all products produced to customers' specifications in impeccable surroundings. Equipment is updated to meet market needs, training and apprenticeships guarantee qualified workers, and management prides itself on job tracking and efficiency systems.

The McKee Division's reputation for strong customer service is enhanced by Gasbarre's commitment to Total Quality Management and continuous improvement.



*Design and Manufacture of Tooling for
the Electronics & Advanced Materials Industries*



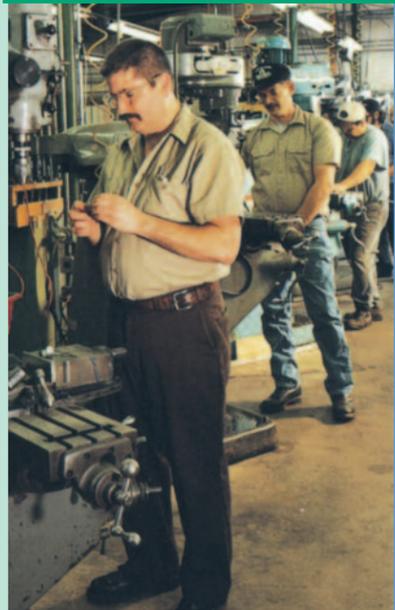
McKEE CARBIDE TOOL DIVISION

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CERTIFIED
ISO 9001

M c K E E C A R B I D E T O O L D I V I S I O N

McKee Carbide Tool Division of Gasbarre Products specializes in tooling and precision machining of components for the electronics and advanced materials industries. We have an uncompromising commitment to customer satisfaction, demonstrated by attention to detail, overall quality and delivery speed. Rely on us as a trusted partner in success.



Our experienced machinists and well-equipped tool and die facility let us tool many complex shapes and materials, including ceramics, carbides, specialty/advanced plastics, stainless steel, tool steel, aluminum, and mild steel. For example, we precision-grind tough carbides and ceramics, mill and lathe heat-resistant plastics, and achieve fine tolerances when working in aluminum. Miniature compacting tooling for tantalum capacitor and other miniature electronic components is a specialty.

McKee can recommend design modifications for easier manufacturability, reduction of cost, streamlined processing, and better performance. Let us work with you to make the production of your component as efficient as possible.

Gasbarre continues to invest in advanced EDM cutting technology to achieve higher accuracy, finer finished and lower cost of manufacturing.

PRECISION BY THE NUMBERS

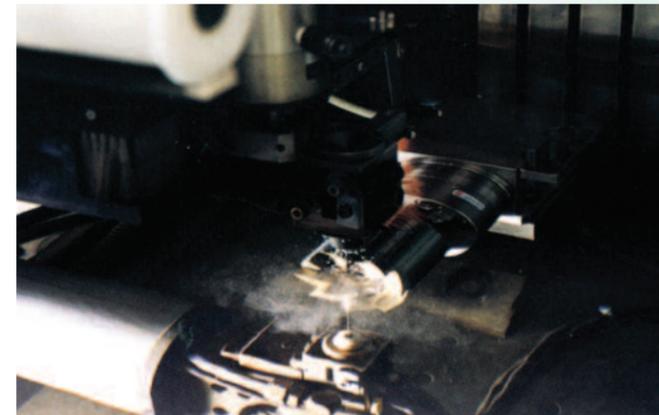
To meet your specifications, McKee is capable of tolerances to one ten-thousandth of an inch. These quality, well-maintained tools combine with our skilled operators and superior knowledge of processes and materials to achieve this high level of precision.

EDM	Conventional, CNC and wire, up to 6 axes, tolerances to 0.0001 inch
Surface Grinding	Manual and CNC, to 0.0001 inch
Honing	Up to 4" ID and 3" OD, to 0.0001 inch
ID Grinding	To 0.0002 inch
Cylindrical Grinding	Center and centerless, to 0.0002 inch
Turning	Manual and CNC, to 0.0002 inch
Milling	Manual and CNC, to 0.0002 inch

EXACT TOOLING TECHNOLOGY

The variety of machine tools available at McKee demonstrates our investment in advanced technologies. In 1998, a Sodick six-axis, CNC, wire EDM machine added increased capacity, flexibility, and part complexity to our operations. With this machine, McKee is able to meet the challenge of intricate geometries while improving overall part quality and reducing setup, run-time, and secondary operations. The slip clutch illustrated in the photo below makes use of all six programmable axes of the EDM machine.

Precision grinding is McKee's strength. Whether working with tool steels, ceramics or carbides, you are assured of repeatability and accuracy.



The complex geometry of this slip clutch is no problem for the rotary table on our six-axis wire EDM. This machine offers tolerances to one ten-thousandth and great flexibility.



We offer great flexibility with this four-axis vertical CNC machining center, the largest of our four CNC centers.

WE'LL JOIN YOUR TEAM

Give us your most important parts, we can handle them. We'll become a part of your manufacturing team.

Here are just some of McKee's areas of expertise:

- Miniature compacting tooling for precision electronic components
- Punches and dies for powder compacting industry
- Jigs, fixtures, and wear parts for automated electronic assembly machinery
- Indexing systems, probes, jigs, and fixtures for electronic testing
- Replacement parts, tooling, and fixtures for automatic handling lines
- Punches and dies for stamping applications
- Dies and core tooling for plastic injection molding

PRECISION MACHINE PARTS

- Shafts
- Bushings
- Wear parts
- Cams
- Machine castings

FEATURED CAPABILITIES

- **EDM** Conventional, CNC, and wire EDMs up to six-axis capability
- **Vertical and Horizontal Mills** Four CNC and six manual
- **Lathes** Two CNC and eight manual
- **Grinders** More than a dozen grinders: cylindrical, centerless, ID, and surface
- **Honing Machines** A secondary, finishing step
- **Heat Treating and Coating** In-house heat treating and wide variety of coatings

OTHER CAPABILITIES

- Powder metallurgy secondary processes
- Finished assemblies
- Powder compacting press components
- Custom tooled parts