



**CARBIDE SAWS  
AND SERVICES**



The cutting edge of saw technology.



## The Power of Carbide



For shops that need to cut large quantities of steel, particularly alloy and stainless steel, carbide circular saws provide a significant advantage. Carbide technology provides a better, faster way to make quality cuts, allowing the AMSAW® line of carbide- or cermet-tipped circular saws to outperform band saws in virtually every category.

### Better ROI

A carbide circular cold saw costs \$.0027 per square inch of cut to operate, 20 percent less than a high-speed steel band saw at \$.0033 (see chart below). For high-volume shops, that translates into a significant competitive advantage when bidding new jobs.

### Better Speed

Carbide saws can cut 100 to 140 square inches per minute, far faster than HSS band saws, which typically cut just 10 to 20 square inches per minute. For high-volume applications, cutting

thousands of pieces each month, this speed translates into more products that are shipped faster and more economically.

### Better Cuts

Compared to band saws, AMSAW® circular saws with carbide or cermet tips provide a more finished and accurate cut. In fact, carbide and cermet blades produce a cut that often looks like a machined surface, without the irregularities and rough edges common to band saw cuts. That means less finishing, less time and less labor are required to move finished parts out the door.

### Better Blades

Carbide-tipped saw blades can be resharpened eight to ten times, and the blades can be re-tipped up to four times. That gives carbide blades a much longer useful life than band saw blades, which must be replaced when dull.

### Cost Comparison

<b>Band Saw Blades</b> (discarded after one use)		
\$30	New blade price	
÷ 9000	Total square inches of cut per blade	
<b>= \$0.0033</b>	Cost per square inch of cut	
<b>Carbide Saws</b> (reused at least 45 times)		
\$320	New blade price	
+ \$672	Four complete re-tips (\$168 ea.)	
+ \$1960	40 complete regrinds (\$49 ea., assumes 3 tip replacements each time)	
<b>= \$2952</b>	Total lifetime blade cost	
÷ 1,080,000	Total square inches of cut per blade	
<b>= \$0.0027</b>	Cost per square inch of cut	

### Better Design

Compared to wet cutting with band and HSS cold saws, dry cutting with carbide or cermet-tipped blades eliminates the need for costly coolants, coolant recycling and disposal, and handling wet chips. AMSAW® saws reduce mess and labor costs in day-to-day cutting operations, and make better use of costly floor space with a smaller footprint than band saws.

### Better Engineering

AME engineers have been advancing the state of the art in carbide saw technology for decades. With AME, you get expert engineering, craftsmanship, and customized consulting services from design through installation and tooling to make sure your saw is perfectly tailored to your floor plan and application.

### Better Call AME

AMSAW® carbide saws are American made in Rockford, IL, USA for heavy duty performance and faster service. These pages provide a brief introduction to AMSAW® products and AME's design/build/rebuild services. To learn more, please call us or visit our website, or make an appointment to visit AME's North American showroom to see our saws and people in action.



AMSAW provides industry-leading saw technology; AME provides industry-leading engineering services. Both are a cut above, helping competitive high-volume shops deliver better products faster, at lower cost.



## AMSAW® Carbide Circular Saws



Amsaw rail drill chamfers.

### Better by Design

AMSAW® systems are specifically designed for the faster cutting speeds, longer tool life and enhanced precision of carbide saw technology. AMSAW® systems use carbide- or cermet-tipped blades to provide fast, accurate cutting for ferrous and non-ferrous materials, bars or billets, rails, profiles, pipes and tubes.

All AMSAW® saws are designed to withstand the rigors of high-speed, high-volume cutting with a variety of standard features including:

- Compact, rigid design with heavy-duty fabricated construction
- Hardened and ground spindle gears for minimum backlash and long life
- Specially designed guides and dampening device for improved accuracy and longer tool life (patent pending)
- Low-maintenance design with saw blade changeover in less than three minutes
- Dry operation with fast, dependable chip disposal—no coolant, coolant recycling, or wet chip mess

AMSAW® saws can be customized with many special options such as stock size measuring systems, automated length measuring systems, automatic weigh stations, bar manipulating systems, infeed and outfeed systems, stackers and more.

All AMSAW® products can be customized to meet special application and cutting requirements.

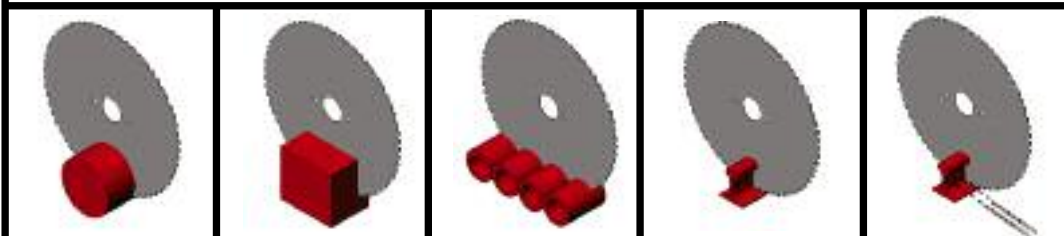
### Standard Carbide Sawing Systems

Five models of AMSAW® Standard Circular Carbide-Tipped Sawing Systems are available for straight or miter cutting on bars or billets up to 600 mm, rectangles, rails, profiles, plates, and pipes or tubes (single or in layers). These high-performance systems are among the most well-designed saws in the industry.

- Compact design with integral hydraulic power supply, chip conveyor and bar length measuring for extremely accurate cuts
- Operator-friendly controls with color touch-screen display use Programmable Logic Controller (PLC), include complete system diagnostics, and are ethernet-capable.
- Double and triple measurement stroke capability for extra length cuts
- Optional multiple plane bar diameter measuring capability for weight-based cutting



Amsaw S300 standard carbide saw.



Five models of AMSAW® Standard Circular Carbide-Tipped Sawing Systems are available. All use disposable or regrindable cermet or carbide-tipped blades, and feature hardened spindle gears with minimum backlash.



## Railroad Rail Saw and Drill

AME also manufactures the AMSAW® R-Series rail saw, made specifically to cut rails for the railroad industry. This saw is designed to improve efficiency and productivity. With the same features of the standard AMSAW® models, the rail saw also offers a flexible setup. It can be combined with integrated or inline rail hole drilling for bolted joints at the rail ends, or with infeed and outfeed material handling systems.



Amsaw R300R rail saw for the railroad industry.

## Automated Carbide Sawing Systems

All AMSAW® standard models can be turned into fully automated systems with bar loading and unloading capability. Automated systems from AME are custom engineered to meet specific sawing and material handling needs for hands-free operation.

- Table supports bar bundles
- Table unscrambles bars for placement on roller conveyor
- Measuring carriage verifies bar diameter in one plane before cutting, feeds bars for trim cut and length cut, and disposes of tail ends
- For sawing to a specific weight, three-point measuring unit verifies diameters, calculates average values, and adjusts measuring length before cutting

- Outgoing conveyor picks up severed parts and separates into different containers
- Optional stackers and bundlers also available

AME can design and build a saw for virtually any application:

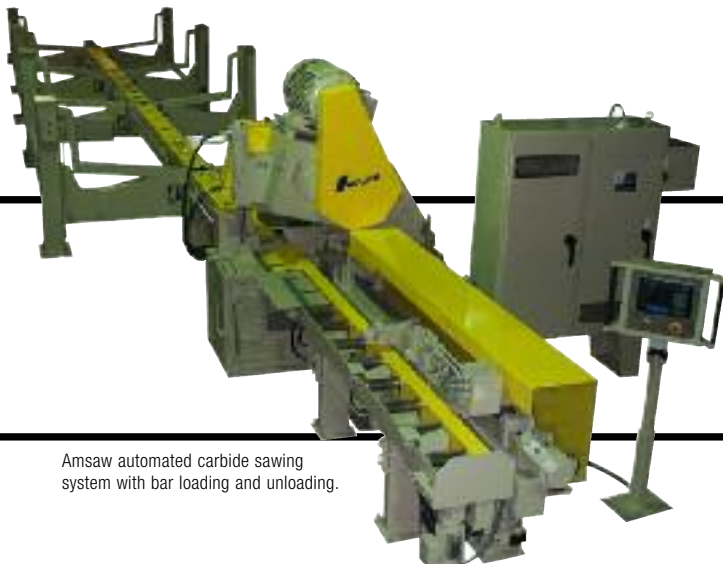
- Plate saws
- Batch cutting saws
- Aluminum cutting saws
- Copper saws
- Abrasive saws
- Special designs with secondary operations
- And more

## Speedcut: Helping you keep your edge

The right blades mean more efficient cutting. That's why AME has a division dedicated to circular blade service and sales.

Speedcut, a division of AME's Carbide Saws Design and Build group, provides high quality new circular carbide-tipped metal-cutting blades in a variety of tooth configurations. Carbide and cermet blades are available along with sharpening, re-tipping and blade repair services for used blades. Speedcut can manufacture and service blades up to 80 inches in diameter, so even the largest applications can produce the cut they need.

Abrasive saw blades are available in a variety of sizes to cut special metals that are difficult to cut with carbide or cermet blades.



Amsaw automated carbide sawing system with bar loading and unloading.

For more information on AMSAW® standard and automated saws, visit [www.ame.com](http://www.ame.com) and click on Carbide Saws.



## AME Custom Machine Services

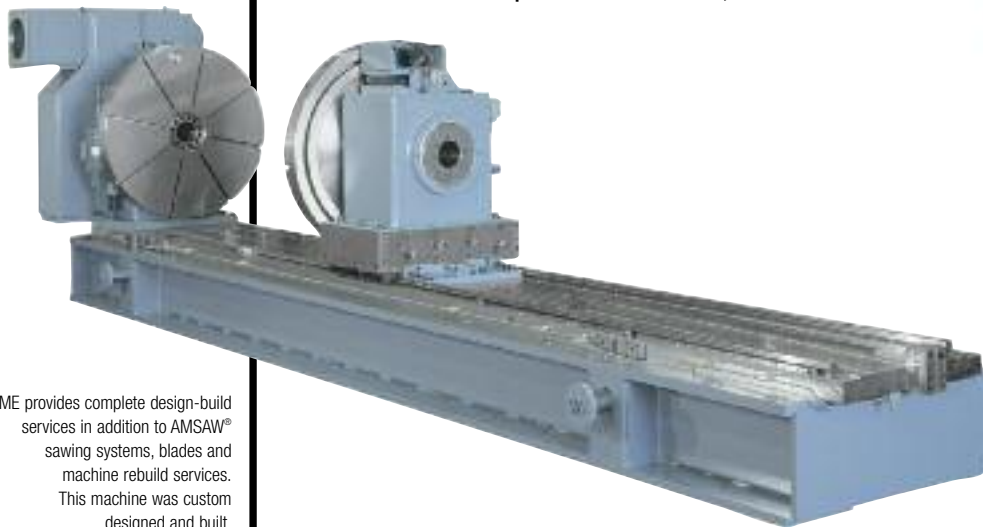
### Design & Build

AME has been designing and building custom machinery for four decades. Our engineers are true craftsmen and keepers of the trade who can design and manufacture specialized machines and systems.

### Fifth Axis Heads

With AME you get advanced problem-solving expertise, and the proof is in our highly specialized systems. For example, AME is one of the few design-build companies in the world to offer custom fifth-axis milling heads for machining at odd angles in hard-to-reach locations. These built-to-order spindle attachments, an AME

specialty, are precision engineered to fit your machine, expanding its original functionality while solving a specific problem. Five types of fifth-axis milling heads are available: straight, right-angle, swivel, gimbal and nutator.



AME provides complete design-build services in addition to AMSAW® sawing systems, blades and machine rebuild services. This machine was custom designed and built.



This built-to-order, fifth-axis milling head was created for a traveling gantry and features a motorized precision spindle operated by a zero-backlash OTT Worm Drive with encoder and programmable controller.



A variety of fifth-axis milling heads are available from AME including: straight, right-angle, swivel, gimbal and nutator.

## Machine Rebuilding

Not just new life, but better-than-new performance. That's what AME can do for many older machines.

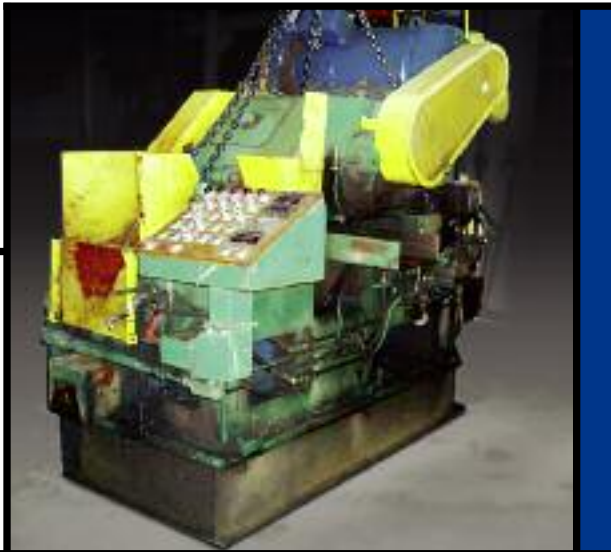
For over 30 years AME has revived old, tired machines to bring them up to date or improve the way they function. AME engineers can reverse- and re-engineer machines, make design improvements, incorporate new functionality, and replace broken or damaged parts. AME adds state-of-the-art controls that improve the accuracy and performance of machines—sometimes beyond their original specifications.

## Services can include:

- Reverse-engineer virtually any machine for a complete rebuild
- Re-engineer components for improved machine function and quality
- Replace damaged components with specially selected parts, bearings, seals, and more
- Custom-manufacture new replacement parts as needed
- Install and program new state-of-the-art control systems
- Design and build additional systems and auxiliary equipment



AME can rebuild or remanufacture practically any machine with extensive in-house engineering and manufacturing capabilities. Many AME customers have gotten additional years of reliable service from their old machines, extending their original investment for a fraction of the cost of new machines.



Before and after: Complete rebuild of CCI 150.



## ***Innovative People, Products and Processes***

At AME, innovation is part of our culture. You can see the result in our processes, partnerships, people and services—and in the precision engineered components, machines and services showcased here. To learn more about AME and our innovative approach to precision machining, please call **815-962-6076** or visit **[www.ame.com](http://www.ame.com)** today.



***Perfect Machine Protection.*** For 50 years, AME's sister company, Hennig, has been designing and producing custom machine protection and chip/coolant management products for state-of-the-art machine tools. Hennig products are reliable, durable, and perfectly tailored to protect against corrosion, debris and common workplace contaminants. There's no better way to protect your investment on the shop floor. Visit **[www.hennigworldwide.com](http://www.hennigworldwide.com)**.

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