

PERFORMANCE
Reliability

PRODUCTIVITY
Efficiency

INNOVATION
Advanced Technology

 **M.A. FORD**
High Performance Cutting Tools

A History of Innovation, Quality & Craftsmanship

At M.A. Ford®, we pride ourselves on being the world's premier manufacturer of high performance cutting tools. That's as true today as it was back in 1919 when Matthew A. Ford produced the first hand cut, HSS rotary files made in America.

Whether it's engineering the exacting tolerances of miniature drills or developing the intricate geometries for application specific high performance cutting tools, our commitment to innovation, quality and professional service, quite frankly, put us a cut above the rest.

M.A. Ford® has two of the world's most modern Solid Carbide and HSS Cutting Tool manufacturing facilities. Located in Davenport, Iowa and Vero Beach, Florida, both plants employ a team concept that strives for improved response times, the highest quality tools, innovative ideas, cost reduction and control. A European sales and distribution headquarters located in Derby, England, provides tooling and technology to Europe. M.A. Ford® is ISO 9001: 2000 certified.

M.A. Ford® also is keeping ahead of the industry's need for unique tooling technology and specialty coating by creating partnerships and joint ventures with worldwide market leaders. M.A. Ford®'s products are coated by Miracle Tools America, which is M.A. Ford®'s subsidiary established with Mitsubishi Carbide and MMC Kobelco Tool. MMC Kobelco Tool licenses the PVD technology to Miracle Tools America.

Setting Today's Standards and **Redefining High Performance**

Twister® Solid Carbide High Performance Drills

M.A. Ford® has been manufacturing precision hole-making tools for over 87 years. Today, we have the most complete lines of drills in the industry - ranging from high-precision micro and circuit board drills, to high performance, large diameter drills for machining aluminum, stainless steel and exotic alloys.

Today, you can rely on M.A. Ford's Twister® products for drilling virtually any material. We've broadened our family by the addition of TiN and ALtima® (AlTiN) coated high performance drills to help assure that you have the correct drill size and coating to meet all your hole-making requirements.

Due to an aggressive R & D program, M.A. Ford® has been able to continuously add to its family of high performance drills. The newest addition is the Twister XD™. The Twister XD™ is the result of a lengthy research and development effort. M.A. Ford® engineers have incorporated a new flute profile, a unique drill point, and the latest surface coating technology, to produce a drill that can be applied in a broad range of materials. The Twister XD™ has undergone extensive field-testing proving again and again that it will significantly reduce a manufacturer's "cost per hole".



In addition to introducing new drills with advanced materials, geometries and flute designs, M.A. Ford® also has increased our family of coolant fed drills. Coolant fed drills should be used whenever through-spindle coolant is available. By delivering coolant right to the cutting edge, M.A. Ford® coolant fed drills enable you to increase speeds up to four times that of a standard HSS drill, and 1.5 times that of a standard solid carbide drill. Also, deeper holes can be machined without peck drilling, because the pressurized coolant forces the chips out of the hole.

M.A. Ford® offers solid carbide drills in sizes ranging from #80 (.0135") to 25/32" and from .30mm to 20.0mm. Coolant fed styles are offered in sizes ranging from #31 (.1200") to 25/32" and 3.0mm to 20.0mm.



TuffCut® Solid Carbide High Performance End Mills

M.A. Ford® TuffCut® end mills perform better and last significantly longer than competitive products, minimizing process downtime and maximizing productivity and cost efficiency. Included in our product line are high performance end mills developed for specific applications such as stainless steels and high temperature alloys, hardened steel, and aluminum and softer alloys.

New to the TuffCut® high performance end mill line is the TuffCut® XR. Available as 4 or 5 flute square end, 4 or 5 flute corner radius end and 4 flute ball nose, these end mill's unique flute geometry allows for increased feeds and speeds while reducing harmonics. With over 300 variations including stub, standard, long and extra long flute lengths, it is the most complete offering available for heavy rough milling applications in the industry today.

We also carry a complete family of standard carbide end mills designed for efficient general purpose milling of all steels, cast irons and most other materials.

M.A. Ford® solid carbide end mills are ideal for tough or abrasive work. On many jobs they can run faster than HSS or Cobalt because of their high heat resistance. The result is higher production rates.

With over fifty different styles available, M.A. Ford® can deliver the correct combination of size, flute length, number of flutes, geometry and coating to meet your specific needs.

Countersinks

M.A. Ford® offers one of the most complete selections of HSS and carbide countersinks and deburring tools. The original M.A. Ford® single flute Uniflute® countersink is unequalled for economical, chatter free machining. It is available in both HSS and carbide, with angles from 60° to 120° and diameters ranging from 1/8" to 3".

For higher feed rates or reduced chip loads, multiple flute tools are available. Multiple flute countersinks are designed for increased feed rates. Because there is more than one cutting edge, chip loads are not excessive, and chatter can be controlled, allowing higher feeds.

Whichever you select for your specific needs, you'll find unparalleled quality in manufacturing and materials with M.A. Ford® HSS and carbide countersinks.



TrueSize® Solid Carbide High Performance Reamers

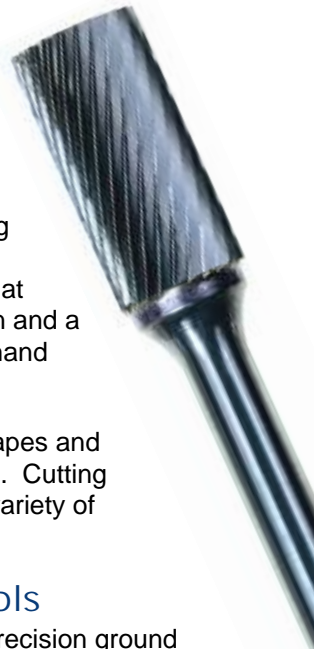
In applications that require high-precision hole finishes, or tighter diameter control, M.A. Ford® TrueSize® Reamers can be used with confidence. Solid Carbide Reamers are available in a wide range of sizes for virtually all materials, including cast iron, aluminum, stainless steel, exotic alloys, plastics and other non-ferrous materials.

M.A. Ford® stocks over 1,000 inch and metric size reamers in its product line, ranging from .013-inch to 16mm diameter. These products are available for immediate shipment. M.A. Ford® also maintains an inventory of pre-finished blanks, which can be finished to your precise specifications and shipped within 72 hours if requested.

Edge Hog® Carbide Burs

For aggressive cutting action, smooth operation and long tool life, M.A. Ford® Carbide Burs are your best choice. All of our carbide burs are manufactured on CNC machines, and inspected to exacting tolerances. Quite simply, the bur runs smoother. Without bounce or chatter. That means a more efficient finishing operation and a better finish than possible with irregular, hand ground burs.

M.A. Ford® has over 160 different tool shapes and sizes available to suit your specific needs. Cutting diameters range from 1/16" to 1", with a variety of either fractional or metric shank sizes.



Miniature Solid Carbide Tools

M.A. Ford® is a leading manufacturer of precision ground miniature carbide cutting tools. Included in our product line are miniature carbide drills, carbide end mills, carbide burs, carbide boring tools and carbide reamers. Our miniature cutting tools are manufactured to the highest standards, so you're assured of quality and performance. Look for the introduction of M.A. Ford® miniature coolant fed drills in the near future.

Custom Tool Division

For special or unique applications that require more than standard tooling, M.A. Ford® has a dedicated Custom Tool Division that can design a unique solution for your application needs. Or, we can work cooperatively with your manufacturing engineering and tooling groups to jointly develop the best possible solutions for your manufacturing requirements. The Custom Tool Division is part of our ongoing strategic focus on being the industry's Best Value Tooling Partner.



World-Class Products World-Class Service

Worldwide Distribution and Service

Centrally located in Davenport, Iowa, with national and international distribution through an extensive network of distributors and manufacturer's representatives, M.A. Ford® can respond to customer needs within days, or even hours, depending upon the tooling needed. For example, 99% of M.A. Ford® tools are available for shipment from stock.

M.A. Ford® has actually increased its technical support capabilities in recent years. With more than 40 factory-trained technical representatives, M.A. Ford® and its reps can deliver on-site tooling recommendations and technical support when and where you need it.

Call Today!!

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ISO 9001 : 2000 Certified



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