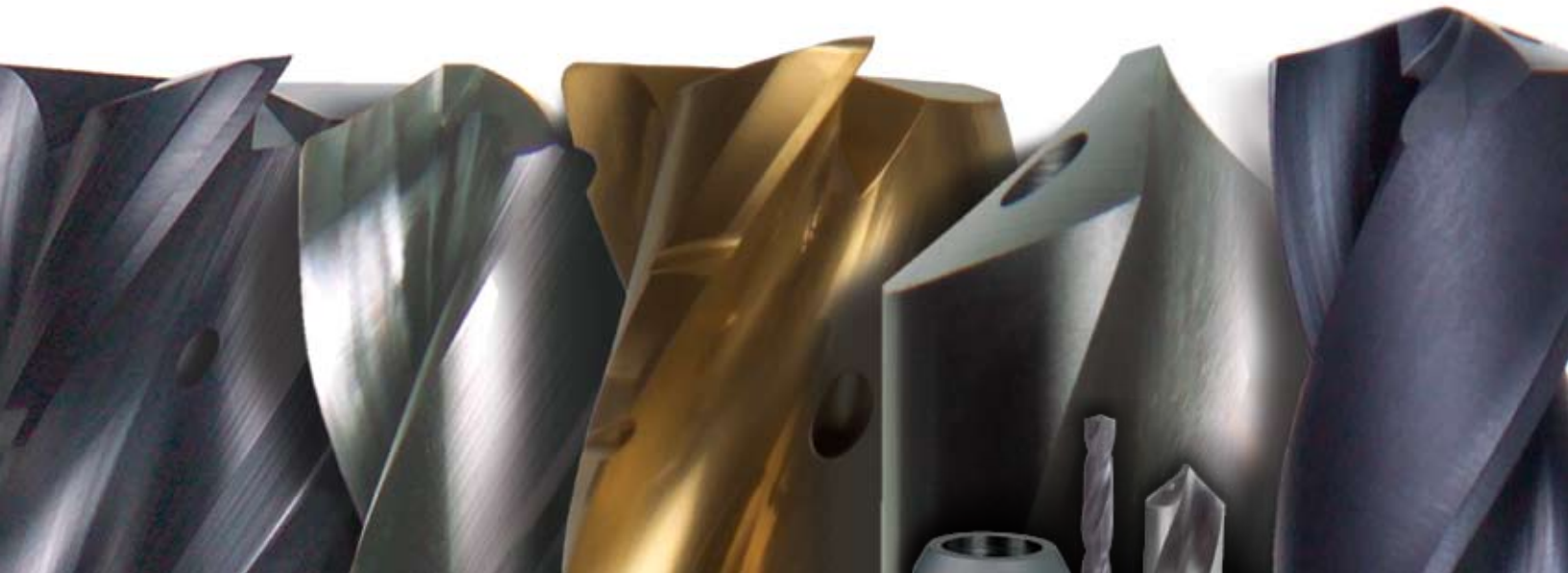


PERFORMANCE THRU INNOVATION



**COOLANT-FED TOOLING
& SYSTEMS®**



THE GEORGE WHALLEY COMPANY

Cobalt Coolant-Fed Twist Drills

Ultra-Gold Solid Carbide Coolant-Fed Twist Drills

These top-of-the-line drills have highly polished flutes coupled with a new multi-layered gold coating. This combination allows the tool to reach greater drilling depths without chip impaction. The George Whalley Company supplies this new line of solid carbide, micro grain twist drills in a 2 flute parabolic style and a 3 flute spiral style. These drills are manufactured to close tolerances in order to meet or exceed the most rigid aerospace requirements. These drills are designed for drilling at high speeds and fast feed rates in deep hole or extended reach applications. Suitable to machine non-ferrous materials, such as aluminum, aluminum alloys and composites as well as free machining stainless steel, steel and cast iron (best performance achieved with short chip materials). These drills come equipped with reinforced carbide cylindrically ground shanks to adapt easily to shrink fit holders, hydraulic holders and precision collet chucks.

The drills range in diameter from .1875" thru .5312" and lengths up to 21X the drill diameter.

The Whalley M604 is one of the most versatile, metric stub length cobalt drills available today. This drill combines parabolic flute design with a CNC shank. The shanks are produced with a whistle notch making them easily adaptable to most machines and machining requirements. Performs like carbide with the forgiveness of high speed steel. Available in diameters of 5mm to 14mm and overall lengths of 82mm to 124mm.

The Series 605 high performance spotting drill is designed to initiate a precise drill hole on tough or hard materials where work hardening conditions may be caused by a lack of lubrication. Provides fast accurate spotting and single operation centering and chamfering ensuring accurate, deep holes. Match spot drill and follow-up drill point angles to reduce chance of chipping the follow-up drill during initial penetration. Zero body clearance restricts drilling beyond point angle. Available in diameters of 1/4" to 1" and overall lengths of 2 1/2" to 6". Available in 90°, 120° and 135° point angles.

The George Whalley Company's new, fast spiral, parabolic flute Series 609 cobalt drill performs similar to carbide drills, but is more suitable for a wider range of materials and machine tools. The Hardlube treatment containing titanium aluminum nitride with tungsten carbide is excellent for chip evacuation, extending tool life and cutting edge durability. Manufactured with ASP 30 Powdered Metal for longer life and consistent performance.

The Series 609 is a jobber length drill available in decimal and metric sizes with diameters ranging from 5/32" to 1/2" and overall lengths of 4-1/4" to 6".



Performance Thru Innovation

The George Whalley Company's Coolant-Fed Tooling & Systems® program will provide you with products and solutions that will improve your company's manufacturing performance thru innovation. From twist drills to end mills, carbide to cobalt, toolholders to pumps, George Whalley people are dedicated to turning innovative ideas into leading products and services that will help solve some of your toughest manufacturing problems.

The Coolant-Fed Solution

Specifically designed for the speeds, feeds and temperature extremes of today's machining processes, coolant-fed tooling is engineered to supply coolant where it is needed most . . . at the cutting edge of the tool. A coolant-fed system directs coolant from the machine tool's coolant system through orifices running the length of the tool to small ports located at or near the tool's primary cutting edge.

COOLANT-FED BENEFITS

Increased Tool Life

By directing coolant to the cutting edge of the tool, lubrication is improved and friction is reduced. The result is increased tool life.

Increased Speeds and Feeds

The flushing action of the coolant forces chips away from the workpiece, eliminating compaction, clogging and chip recutting, allowing maximum speeds and feeds.

Improved Accuracy

The free cutting action of coolant-fed tools, combined with more effective chip ejection, provides improved cutting performance and enhanced accuracy.

Elimination of Secondary Operations

The reduction of heat, friction and galling reduces the potential for stress cracking while improving surface integrity. The improved finish may eliminate the need for costly secondary operations like reaming and boring.

Whalley Innovation

The George Whalley Company pioneered the coolant-fed tooling industry. Innovations introduced by the company include special sealing devices for coolant-fed tooling, unique coolant glands and specialized holders for coolant-fed tools. Many of these innovations have since become industry standards. The design and development of new products continues with solutions to the "special" requirements of today's machining applications.

Whalley Quality

The George Whalley Company's Coolant-Fed Tooling & Systems® are manufactured from the finest materials and designed to provide long-lasting performance. All of our products meet or exceed industry specifications.

Whalley Inventory

The George Whalley Company maintains the largest inventory of Coolant-Fed Tooling & Systems® products available today! This comprehensive range of standard and specials includes drills, reamers and cutters, end mills, taps, spade blades and holders, toolholders, sealing devices, pumps and more.



High-Speed Steel Coolant-Fed Twist Drills

The George Whalley Company line of high speed steel parabolic style drills perform exceptionally well in aluminum as well as most other materials. The 32° helix has excellent shearing action in addition to assisting the lift of the chip in the vertical position and the flow of the chip in the horizontal position. Parabolic design gives maximum chip room and lift in deep hole drilling. Split point design is self centering and provides accurate hole locations.

Available in stub length for many of today's micro applications as well as extra lengths sizes.

Diameters of 1/8" to 3/4" and overall lengths of 3-1/2" to 10-3/4".



Solid Carbide Coolant-Fed End Mills

Great for slotting, plunge cutting and profiling! The George Whalley Company now offers a new line of solid carbide coolant-fed end mills. These 3 flute end mills are designed for machining materials such as stainless, steel, titanium, as well as other ferrous and non-ferrous materials. These end mills are available in roughing and finishing styles from 1/4" to 3/4" diameter. One axial hole runs through the center of the tool exiting out each flute. All end mills have highly polished flutes coupled with a new multi-layered gold coating. With good coolant pressure thru the tool, cutting chips are easily flushed away from the cutting surface greatly improving stock removal, tool life and part finish.

Hurricane™ Solid Carbide Coolant-Fed End Mill

The new, Whalley Hurricane™ is the only solid carbide, coolant-fed variable helical end mill available today. The Hurricane™ is manufactured with four unique flutes which provide a synchronized cutting action that eliminates vibration. This state-of-the-art design allows for simultaneous roughing and finishing as well as quicker feeds which increase production. Our 6 coat, blue/grey coating improves lubricity.

Available in diameters of 1/4" to 3/4" and overall lengths of 2-1/2" to 4".



Solid Carbide Coolant-Fed Twist Drills

The George Whalley Company offers a complete product line of solid carbide, coolant-fed drills in metric and decimal sizes. Designed for drilling depths up to 7x diameter, many of these drills are produced with common shanks. Several of the drills are intended to suit material specific applications with coatings, helix angles and drill points to match. Available in metric diameters from 4mm to 11mm and overall metric lengths from 74mm to 118mm. Decimal sizes range from 3/16" to 1/2" diameters and overall lengths of 2 3/4" to 7".





Modular Toolholders

Modular toolholders are becoming more important as industry is seeking to develop more lean manufacturing methods. The Whalley Modular Tools will easily adapt to end mills, drills and boring tools. In addition, the Whalley Modular System satisfies the need for fixed tooling kits in on-demand vending systems. All of The George Whalley Company modular toolholders are made with coolant-fed features. These toolholders are available in CAT V Flange and BT Shanks and they are adaptable to HSK systems.

Coolant-Fed Milling Chucks

The George Whalley Company precision milling chucks provide maximum performance for solid carbide, carbide tipped and indexable tools. All chucks are sealed with an adjustment screw at the back end of the toolholder eliminating the need for sealed collets. The combination of radial and axial grooves provides the best grip in the marketplace, .0002 TIR accuracy. These chucks are great for roughing or fine finishing applications and are available in CAT V holders, BT holders and HSK holders.



Sealed Collets, Bonded Collets, Discs and Positive Sealed Stop Screws

Nobody provides more methods of sealing cutting tools inside toolholders than The George Whalley Company. Whether your application is low, medium or high pressure, tools with or without flats, metric or decimal sizes, Whalley has the sealing device you need in a variety of shank sizes and styles.



Coolant-Fed Pumping Systems

The latest technology in coolant-thru-the-tool, the Whalley high-pressure pumping system is available for all types of machine tool applications! This portable, quick-change pump provides coolant pulsating pressure up to 1,000 PSI and volume of up to 10 GPM. This system contains dual coolant filters and micro pure air filtration for economical air operation. The pump is encased in a heavy-duty, stain resistant cabinet and is controlled by an electrical solenoid. The CFT Model 1000 High Pressure Pumping System eliminates heat, extends tool life and flushes chips, yet it is economical and affordable. This pump is adaptable to any machine, simple to install, and easy to maintain.



The George Whalley Company



Today's George Whalley Company is far more dynamic and customer-driven than ever before. We are committed to providing our customers with innovative, high-quality products and services. Globalization and instant access to information, products and services continue to change the way our customers conduct business. Today's competitive environment leaves no room for error. We must meet or exceed our customers' needs and continuously look for new ways to exceed their expectations. We are an evolving company in a changing world.

At the George Whalley Company we recognize that our ability to excel depends on the integrity, knowledge, imagination, skill and teamwork of our employees. We know that to be a successful company we must work together, frequently transcending organizational boundaries to meet the changing needs of our customers. To this end, we strive to create an environment of mutual respect, encouragement and teamwork, an environment that rewards commitment and performance.

We are a company of integrity. The George Whalley Company reputation for honest and reliable business conduct, built by so many people over so many years, is tested and proved in each business transaction we make.

Since 1937, The George Whalley Company has been changing ideas into reality. We invite you to learn more about the innovative spirit of our company and our dedication to making things happen. For detailed product information, a full-line catalog or answers to a specific machining application please contact us today.



The George Whalley Company

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