

## Threading

### AccuThread 856®

- Available in solid carbide, pin style indexable, and bolt-in style indexable
- AM210® coating provides 25 - 50% increase in tool life over competition
- Thicker core and helical flute for increased strength and rigidity when cutting forces are applied



### MaxThread™

- TiAlN coated for increased tool life over uncoated tools
- Extensive range of thread forms
- High quality for consistent predictable production
- NEW with Through Coolant



## Porting

### AccuPort 432®

- Eliminates need for pre-drilling
- Allows for efficient set-up and production time
- Saves tool cost with replaceable insert design, which also eliminates regrinding and resetting
- Available in 4 specifications
 

Imperial (SAE J1926)*	Military (SAE AS5202)
Metric (ISO 11649:1)	John Deere (JDS G173.1)

\* 2-step port finishing kit also available



## Reaming and Roller-burnishing



### ALVAN® Reamers

- Reaming range 5.80 mm - 200.60 mm
- 4 variations of tool type
- Integral reamers, straight or helical cutting edges
- Cutting rings available from diameter 17.60 mm
- Interchangeable expanding or fixed-head system, straight or helical cutting edges
- TSA system, solid carbide or Cermet interchangeable head
- Available in carbide or Cermet with a choice of coating such as TiN, TiAlN, TiAlN<sub>2</sub>, etc.
- High feed reaming due to multiple cutting edges

### SCAMI® Rollerburnishing

- Diameter range: 4.70 mm - 165.90 mm
- Superior surface finish
- Hardens the hole finish

## The Foundation

Since 1941, Allied Machine & Engineering has been providing dependable and practical holemaking solutions to the world. What was once a small job shop in Ohio is now a worldwide leader in cutting tool technology. With two manufacturing facilities in Ohio, a third in Georgia, and headquarters in both the United States and Europe, Allied Machine is positioned to bring innovative solutions and technical expertise right to the customers' hands.



## The Innovation

Since the development of the T-A®, Allied Machine has expanded its product offering to support a vast range of customer applications, including large diameter and deep hole drilling, boring, reaming, porting, and threading.



## The Future

Allied Machine is constantly investing in the brightest and sharpest minds, shaping a future filled with success and quality for customers around the world.



## The Beginning



Harold E. Stokey founded Allied Machine & Engineering to aid the war effort, manufacturing taper bearing lock nuts for the production of M1 tanks. Years later, after a sales meeting gone wrong, Stokey possessed a warehouse

stocked with spade drill inserts. He set forth into the industry that would become Allied Machine's thriving identity: holemaking.



# ALLIED MACHINE & ENGINEERING

Holemaking Solutions for Today's Manufacturing

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# Holemaking Solutions



# ALLIED MACHINE & ENGINEERING

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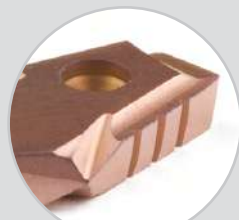


## Drilling

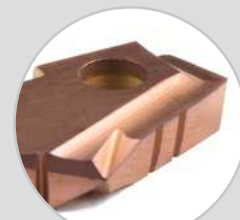


### GEN2 T-A®

- Diameter range: 9.50 mm - 114.30 mm
- The GEN2 T-A Notch Point® improves stability, hole straightness, and reduces thrust
- Advanced cutting geometry improves chip formation
- AM200® coating improves performance and tool life
- Helical margins improve surface finish



GEN2 T-A® Geometry



GEN2 T-A® HE High Elasticity



AM200®



TiN



TiCN



TiAlN



## Deep Hole Drilling



### Guided T-A®

- Maintains a straighter hole throughout operations
- Provides tighter true position holes
- 2x faster penetration rate than gun drills
- Great for breaking out on uneven surfaces
- Available in carbide-clad and chrome-plated styles
- Use with standard T-A®, GEN2 T-A®, HSS or Carbide inserts



### BT-A Drill

- Diameter range: 12.95 mm - 47.80 mm with max. drill depth 2.6 m
- Compatible with standard BTA-STS systems
- Laser clad bearing area for improved straightness
- Replaceable cutting edges eliminate the need for resharpener
- Increased penetration rates over brazed heads and traditional gun drills

### APX Deep Hole Drilling

- Diameter range: 38.00 mm - 101.60 mm
- Uses GEN3SYS®, T-A® or GEN2 T-A® pilot insert to stabilize the tool through the cut
- Outboard carbide inserts achieve the final cutting diameter
- Allows for higher spindle speeds
- Takes advantage of power curves on modern CNC machines for maximum penetration rates on deep holes



## High Performance Drill



### GEN3SYS® XT Pro

- Diameter range: 11.00 mm - 35.00 mm
- Easy selection of tooling
- New AM400® coating series for high wear resistance
- Specially designed for ISO material grades
- New holders in 3 x, 5 x, 7 x and 10 x D
- Increased coolant supply and improved flute design
- Up to 40% more tool life

\*Available in early 2017\*

### GEN3SYS® XT

- Diameter range: 11.00 mm - 35.00 mm
- Improved material-specific geometries, paired with premium AM300® coating, provides up to double the tool life versus competitive products
- GEN3SYS®XT inserts fit into existing GEN3SYS® holders
- Available in Stub, 3 x, 5 x, and 7 x D

Available in four geometries:



XT



LR



AS



CI

Available in four geometries:



P



K



N



M



## Boring



### Wohlhaupter

- Experience highly efficient and economical precision boring in every dimension
- Innovative tool solutions that are individually adapted to suit diverse, complex requirements and changing tasks
- For the increasingly demanding machining requirements of many industries
- Customized for you by the world leader in digital boring tools

### Allied Criterion

- Diameter range 3.00 mm - 341.00 mm
- Micro fine bore incremental adjustments of 0.0012 mm on the bore diameter
- Fine and rough bore solutions
- Excellent flexibility in length, diameter and shank configurations
- Single and dual inserts systems for high accuracy and performance
- Utilise standard ISO inserts
- Kaiser® and Komet® Connections are available



## Large Diameter

### Revolution Drill™

- Diameter range: 47.75 mm - 101.00 mm
- Replaceable cartridges provide rebuildable function
- Drills from solid, eliminating the need for a pilot hole
- Adjustable up to 5.1 mm on diameter
- Drill depths from 2x to 4.5x D



### Core Drill™

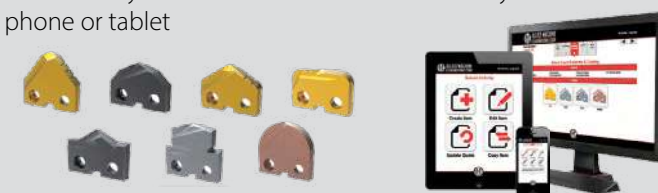
- Diameter range: 50.80 mm - 142.75 mm
- Opens an existing hole in ONE operation
- Ignores core shifts up to 3.175 mm, providing straight and true holes without boring
- Protects your investment with replaceable cartridges
- Reduces inventory and costs with adjustable diameters



## Specials

### Insta-Quote™

- Create or edit custom designed T-A® holders, T-A® inserts, or GEN3SYS® holders
- Design your tool and receive a free quote and drawing within minutes
- User-friendly interface is available online or on your smart phone or tablet



### Engineered Specials

- If your needs cannot be met within the Insta-Quote™ system, the Allied engineering team will create the special for you
- Saves money by drastically lowering cycle times and combining several manufacturing processes into one



### i-Form

- Utilizes complex forms that were previously only available as brazed or solid carbide tools
- Allows for complex designs with replaceable cutting edges
- Reduces set-up times and eliminates regrinds
- Insert lead time as soon as 10 days
- Utilize standard, Insta-Quote™, and/or Special Insert Designs

