ALLIED MACHINE & ENGINEERING

Holemaking Solutions for Today's Manufacturing

Boring

Reaming

Burnishing

Threading

Specials



T-A Pro™

▶ *DRILLING*

High Penetration Replaceable Insert Drilling System

North America

Allied Machine
120 Deeds Drive
Dover, OH 44622
United States

Allied Machine
485 West 3rd Street
Dover, OH 44622
United States

ThreadMills USA™
4185 Crosstowne Ct #B
Evans, GA 30809
United States

Superion®
1285 S Patton St.
Xenia, OH 45385
United States

Europe

Allied Machine Europe
93 Vantage Point
Pensnett Estate
Kingswinford
West Midlands
DY6 7FR, United Kingdom

Wohlhaupter™ GmbH
Maybachstrasse 4
Postfach 1264
72636 Frickenhausen
Germany

Asia

Wohlhaupter™ India
B-23, 2nd Floor
B Block Community Centre
Janakpuri, New Delhi - 110058
India



Allied Machine & Engineering is a worldwide leader in holemaking and finishing solutions. We are committed to providing practical and dependable solutions to our customers through innovative designs and superior customer and technical support.

We continue to expand our product offering in order to provide new and different solutions. With Field Sales Engineers located around the world, we position ourselves to provide technical support on site, right at your spindle.

ALLIED MACHINE & ENGINEERING®

www.alliedmachine.com

ALLIED MACHINE & ENGINEERING

Holemaking Solutions for Today's Manufacturing

T-A Pro™ Drill Series

The Foundation

Since 1941, Allied Machine & Engineering has provided 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 three manufacturing facilities in Ohio, one in Georgia, another in Germany, and headquarters in both the United States and Europe, Allied Machine is positioned to bring innovative solutions and technical expertise directly to the customers' hands.



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.



The T-A®

When Harold's son, William H. Stokey, became the president and CEO, he developed the Throw Away, or T-A, spade drill insert system. The T-A revolutionized the holemaking industry, launching Allied Machine ahead of the competition. Since then, numerous innovations and advancements have been created from the T-A's inspiration.



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, burnishing, porting, and threading.

The People

Allied Machine understands that high quality products are only one facet of success. Our customer support is crucial to what we do, and that's why we make sure the best engineers and customer service associates are in place to assist our customers around the world.

The Future

With over 75 years of experience, Allied Machine has encountered the challenges of growth and success. By investing in cutting edge technology and the brightest and sharpest minds, our knowledge and capabilities continue to expand and grow every day.



Steve Stokey
Executive Vice President

William H. Stokey
President and CEO

Mike Stokey
Executive Vice President

WOHLHAUPTER® ThreadMills USA® SUPERION® CRITERION®

Replaceable Insert Drills

- Reduce costs by decreasing setup time and utilizing a single holder for the lives of multiple inserts
- Provide flexibility to quickly switch between inserts with different geometries
- Products:
  - **GEN3SYS® XT | GEN3SYS® XT Pro**
  - **T-A® | T-A® GEN2 | T-A Pro™**
  - **High Performance | Universal**







Indexable Insert Drills

- Protect your investment and reduce your inventory with replaceable cartridges that allow the same holder to be used repeatedly
- Indexable inserts increase productivity and tool life while reducing costs
- Products:
  - **4TEX® Drill**
  - **Revolution Drill®**
  - **Opening Drill®**



Replaceable / Indexable Insert Drills

- Drill large diameter holes and maximize penetration rates even on low horsepower machines
- Delivers strength and versatility needed for any deep hole drilling application
- Holders cover a range of sizes with the replaceable heads determining the cutting diameter
- Products:
  - **APX™ Drill**











Solid Carbide Drills

- Offer greater strength and stability when drilling tougher materials
- Available in diameters from 3mm - 20mm
- Can be made-to-order specifically for your application (Superion® quoted specials)
  - **ASC 320®**
  - **Superion®**





Structural Steel Solutions

- Deliver outstanding performance and durability in structural steel applications
- Designed to produce optimal results in difficult-to-machine materials
- Available in multiple lengths and diameters
- T-A® style drills have different insert geometry options to improve performance, depending on material
- Products:
  - **T-A® | T-A® GEN2**
  - **GEN3SYS® XT Pro**

BTA (STS) Machining Solutions

- The internal ejection system flushes chips and debris from the hole with no interference to the cutting process
- Utilizes the advantages of the T-A® drill insert
- Designed to significantly increase penetration rates over brazed heads and traditional gun drills
- Products:
  - **BT-A Drill**









Hydraulic Port Contour Cutters

- Save significant time and money by performing four processes in one step
- Replaceable insert design reduces costs, inventory, and setup times
- Available in four industry specifications:
  - Imperial: SAE J-1926
  - Metric: ISO 6149-1:2006
  - Military: SAE AS5202
  - John Deere: JDS-G173.1
- Products:
  - **AccuPort 432®**

4 IN 1

Enhanced Special Drilling Capabilities

- Allied Machine engineers are available to meet with you to evaluate your application and recommend the best solution for you
- Special drilling solutions can incorporate advanced features such as adjustable diameter locations, multiple steps, additional coolant designs, special lengths and diameters, and more
- Special drills can drastically reduce your cost per hole and increase your overall productivity by eliminating multiple processes and increasing tool life





WOHLHAUPTER®
High Precision Boring Systems

- Designs available for high volume applications that increase rigidity to improve performance
- Versatile boring heads that are flexible with changing applications while maintaining excellent performance
- Provides high precision with absolute repeatability to ensure every part is held to tolerance
- Offers an industry leading modular shank connection that maintains rigidity and reduces inventory on your boring system
- Available with both digital and analog settings
- Products:
  - **Wohlhaupter™ Boring Tools**



3E TECH



NOTE: Adjustment accuracy of 0.0001" or 0.002mm on diameter



CRITERION®
Modular Boring Systems

- The modular capabilities are ideal for use across multiple different projects
- Offers versatile boring heads suitable for job shops and tooling rooms
- Provides an economical solution for low volume and/or short-term production applications
- Offers finish boring solutions
- Products:
  - **Criterion® Boring Tools**

S.C.A.M.I.®
Expandable Reaming Solutions

- Expandable cutting diameters accommodate for wear, which extends tool life
- Replaceable cutting heads and rings reduce waste and improve production time versus solid high speed steel and carbide reamers
- Holds tight tolerances to ensure processes are performed to accurate specifications
- Reduces tooling costs because many items are available for reconditioning
- Products:
  - **ALVAN® Reamers**







S.C.A.M.I.®
Roller Burnishing Solutions

- Produce excellent surface finishes
- Provide accurate size control
- Increase surface hardness
- Solutions for both through hole and blind hole applications
- Products:
  - **S.C.A.M.I.® Roller Burnishing Tools**



Solid Carbide Thread Mills

- Available with coolant through options
- Covers a wide range of thread forms
- Provides optimal solutions for both high production projects and short-run applications
- Products
  - **AccuThread™ 856**
  - **AccuThread™ T3**
  - **ThreadMills USA™**



Replaceable Insert Thread Mills

- Three insert lengths are available that cover a wide range of thread forms
- Holders can utilize inserts with different pitches and thread forms
- Repeatability is achieved by both the bolt-in style and the pin style locking systems
- Increases tool life by 25 - 50% with Allied Machine's AM210® coating
- Products
  - **AccuThread™ 856: Bolt-in Style**
  - **AccuThread™ 856: Pin Style**





SPECIAL CAPABILITIES

When it comes to designing and developing special solutions for customers, Allied Machine is the top choice. If your application requires special tooling, give us a call. Our engineered specials are developed by the brightest engineers in the industry. Most of our standard tooling can be altered as specials, or we can create entirely new concepts for particularly unique applications.

One special tooling solution is Insta-Quote®, the online system that allows you to design your own special tooling 24/7. Receive a quote and drawings within minutes just by following the steps.

And with the addition of Superion® technology and capabilities, we can customize made-to-order solid carbide tools to achieve optimal results for your applications.

Whatever your application, Allied Machine has the answer.

Insta-Quote®



SUPERION®





ToolMD™

Increase the production and success of your applications today.

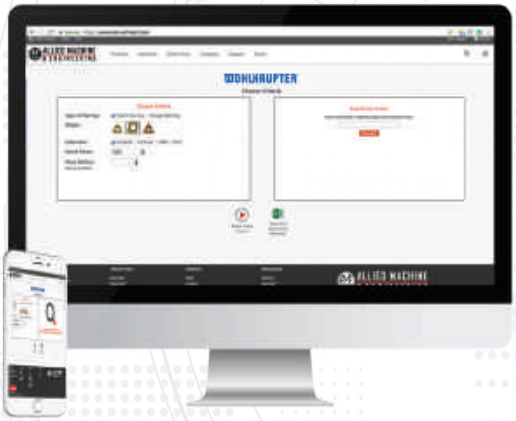
- Direct access to 2D drawings and 3D models
- Assemble and view tool images in your browser
- Download drawings for use in most machining software programs
- Browse products, search item numbers, and save assemblies for future use

toolmd.com

WOHLHAUPTER® Boring Insert Selector

Find the best insert for your application.

- Generate the correct boring insert for your job in just six easy steps
- Choose type, shape, substrate, insert form, nose radius, and material
- Order easily by adding the item to your cart





alliedmachine.com/bis



Product Selector

Use the product selector to find the right tool for your application.

- Follow guided steps to generate the right tool for your application
- Learn about your recommended tool and how to maximize its performance

alliedmachine.com/productselector

Insta-Code®

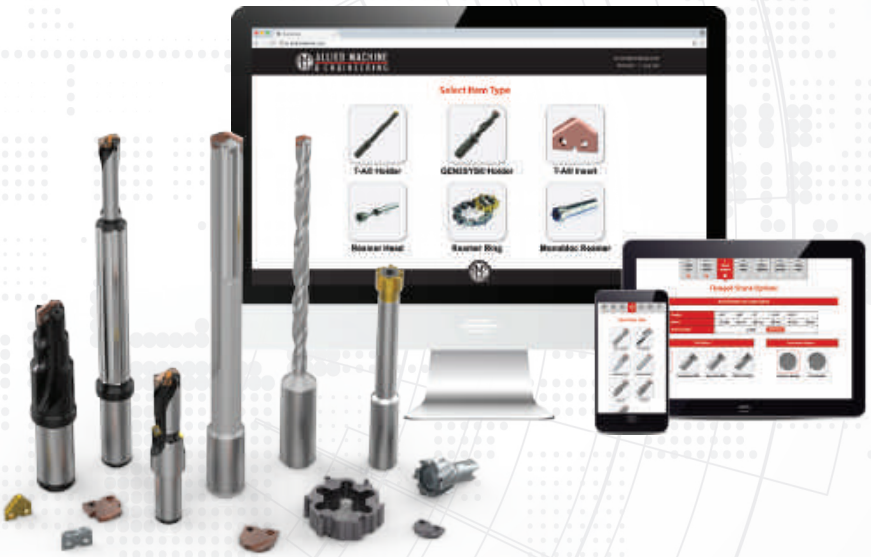
Eliminate the wait. Get your program now.

- Choose the best thread mill for your application
- Create program code for your machine
- Available as a PC download app (that can be used offline)
- Website app available 24/7

Insta-Code also has a **Cycle Time Calculator**



alliedmachine.com/InstaCode



Insta-Quote®

Design your custom tooling and receive a drawing and quote...all within minutes.

- Design and quote your own tooling
- Generate the solution you need in just a few steps
- Features the following products
  - **T-A® Inserts**
  - **T-A® Holders**
  - **GEN3SYS® XT Holders**
  - **ALVAN® Reamers**

iq.alliedmachine.com

Solution Hub App

All Allied all the time.

- Quickly look up product information
- Links to our free online tools
- Locate distributors
- Stay up to date on news and events

Google play

Available on the App Store



Machinist Tool App

Quickly convert cutting tool parameters for the machine inputs you need.

- Input data to calculate the RPM and speed and feed rates
- Also features the Boring Insert Selector
- Access product literature right at your fingertips



Google play

Available on the App Store

T-A Pro™

High Penetration Replaceable Insert Drilling System

- **Diameter Range:** 0.437" - 1.882" (11.10mm - 47.80mm)



The best just got *better*.

After 35 years of spade drilling success with our iconic T-A (Throw Away) insert, the best just got better. Our team of engineers developed technology that takes THE "go-to" solution for general purpose holemaking to a performance level previously unachievable by a spade insert.

The T-A Pro combines material-specific insert geometries, a redesigned drill body, and a proprietary coolant-through system to allow penetration rates which run at speeds faster than other high performance drills.

Excellent chip control	Improves hole quality and surface finish	Provides maximum durability and stability

Applicable Industries

Aerospace | Agriculture | Automotive | Firearms | General Machining | Oil & Gas | Renewable Energy

Your safety and the safety of others is very important. This catalog contains important safety messages. Always read and follow all safety precautions.

This triangle is a safety hazard symbol. It alerts you to potential safety hazards that can cause tool failure and serious injury.

When you see this symbol in the catalog, look for a related safety message that may be near this triangle or referred to in the nearby text.

There are safety signal words also used in the catalog. Safety messages follow these words.

⚠ WARNING

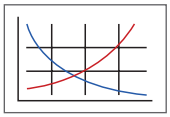
WARNING (shown above) means that failure to follow the precautions in this message could result in tool failure and serious injury.

NOTICE means that failure to follow the precautions in this message could result in damage to the tool or machine but not result in personal injury.

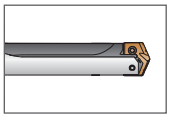
NOTE and **IMPORTANT** are also used. These are important that you read and follow but are not safety-related.

Visit www.alliedmachine.com for the most up-to-date information and procedures.

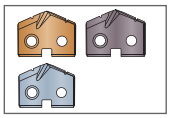
Reference Icons
The following icons will appear throughout the catalog to help you navigate between products.



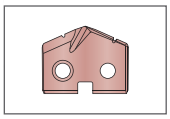
Recommended Cutting Data
Speed and feed recommendations for optimum and safe boring



T-A Pro Holders
Refers to the range of holders that connect with the corresponding inserts



T-A Pro Carbide Inserts
Refers to ISO coated carbide inserts that connect with the corresponding holders



T-A Pro High-Speed Steel Inserts
Refers to HSS inserts that connect with the corresponding holders

Series	Diameter Range	
	Imperial (inch)	Metric (mm)
Z	0.437" - 0.499"	11.10mm - 12.69mm
0	0.500" - 0.694"	12.70mm - 17.64mm
1	0.695" - 0.959"	17.65mm - 24.37mm
2	0.960" - 1.379"	24.38mm - 35.04mm
3	1.380" - 1.882"	35.05mm - 47.80mm

T-A Pro Drilling System Contents

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Recommended Cutting Data

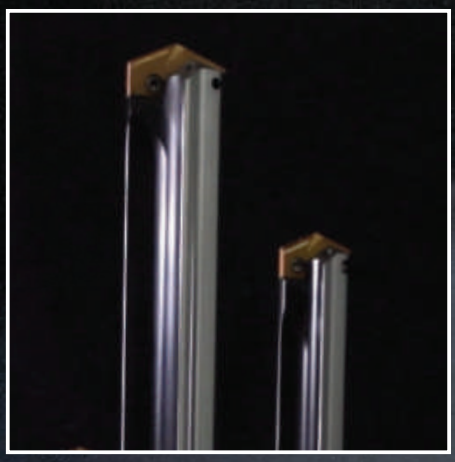
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T-A Pro™



NEW HOLDER DESIGN

Optimized flute design for
***increased* chip evacuation**



NEW INSERT DESIGN

ISO specific geometries with a new point design to ***simplify*** your insert choices



NEW COOLANT DESIGN

Proprietary coolant outlet configuration provides ***superior*** performance **even in low coolant applications (200 PSI)**

Drill Holders



STUB Length



3xD



5xD



7xD



⚠ **10xD**



⚠ **12xD**



⚠ **15xD**

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.



A Series Insert +
A Series Holder



C Series Insert +
A Series Holder



C Series Insert +
C Series Holder



A Series Insert +
C Series Holder

Competitive Test Results

T-A Pro™

TEST RESULTS



Project Profile:	Competitive Testing in 4340 Steel
Tooling Solution:	T-A Pro™: Steel (P) Geometry with T-A Pro™ Holder

The Parameters:

- Hole Diameter = 0.5625" (14.30mm)
- Depth of Cut = 2" (50.80mm)
- Coolant = 300 PSI
- Speed = 2546 RPM
- Feed = 16.55 inch/min (420 mm/min)

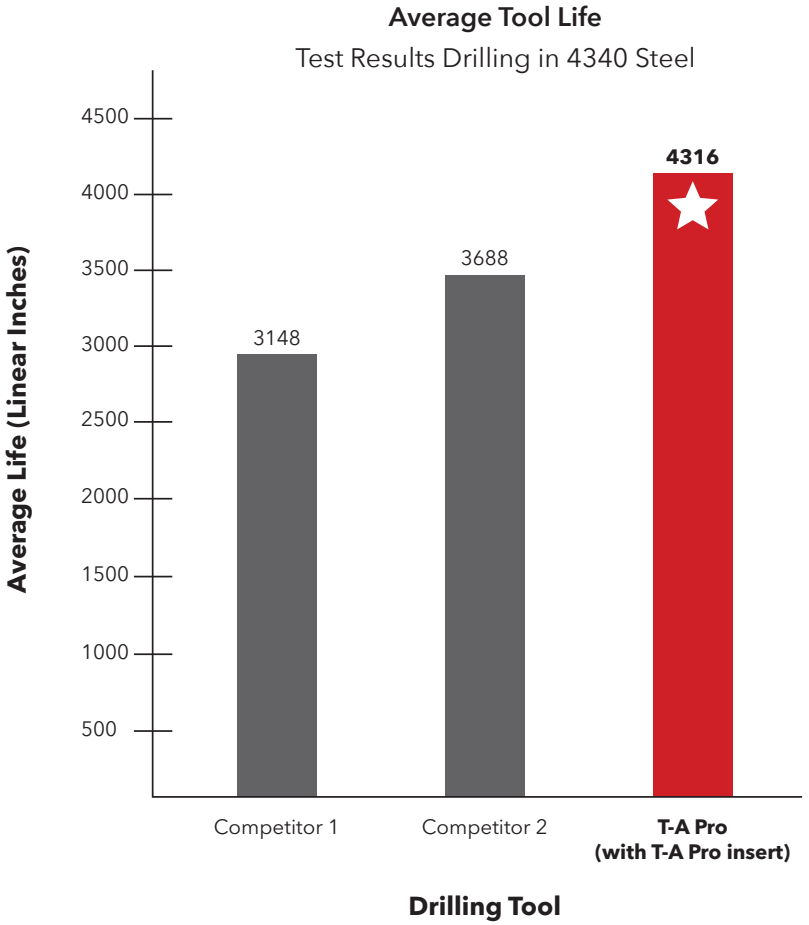
The Results:

When run at the listed parameters, here is how the 3 different tooling solutions performed:

Competitor 1 = 3148 total linear inches

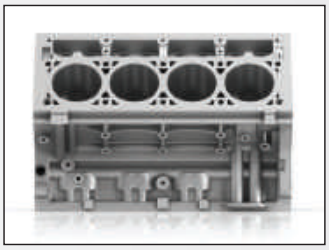
Competitor 2 = 3688 total linear inches

T-A Pro = **4316** total linear inches



Case Study

Need a solution with better tool life?



Our customer was machining engine block parts from ductile cast iron in a production cell. The replaceable tip drill they were using wasn't providing the results they needed, so they began searching for a tooling solution that would decrease machine downtime and increase productivity.

The customer tested the **T-A Pro™ High Penetration Replaceable Insert Drill** using the "K" (cast iron) geometry insert with Allied's multilayer TiAlN coating that provides increased abrasion resistance and tool life. The T-A Pro performed better than the customer had hoped.

Using the T-A Pro not only provided substantial tool life improvements, but it also improved the penetration rate. The previous tooling had a tool life of 1700 holes, but the T-A Pro increased that life to 3400 holes. The T-A Pro also increased penetration rates by 30%. This allowed the customer to increase their productivity.

The bottom line: Our customer was able to save $60k in tool savings per year with massive improvements in throughput. The advantage of the T-A Pro allowed our customer to achieve their tooling goals.

Product: T-A Pro™
Objectives: (1) Decrease machine downtime
(2) Increase productivity
Industry: Automotive
Part: Engine block
Material: Ductile Cast Iron
Hole Ø: 0.6299" (16.00mm)
Hole Depth: 9.50" (241.00mm)

Measure	Competitor Replaceable Insert Drill	T-A Pro™ Drill
RPM	1819 RPM	**2092 RPM**
Speed	300 SFM (91 M/min)	**345 SFM (105 M/min)**
Feed Rate	0.008 IPR (0.20 mm/rev)	**0.0092 IPR (0.23 mm/rev)**
Penetration Rate	14.55 IPM	**19.25 IPM**
Cycle Time	39 seconds	**29 seconds**
Tool Life	1700 holes	**3400 holes**

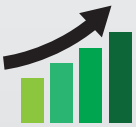
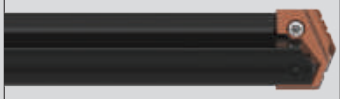
- T-A Pro Drill holder
  15xD length
  Item No. HTA0C15-075C
- T- A Pro Drill inserts
  K geometry
  (cast iron)
  Item No. TAK0-16.00

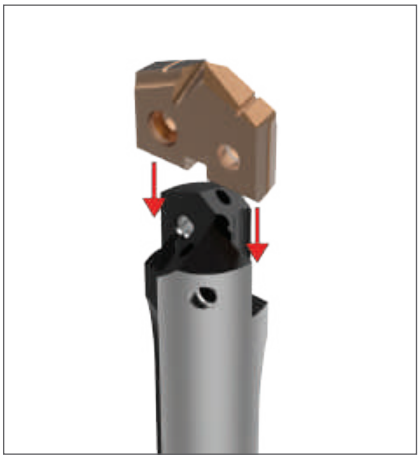


The cast iron TiAlN coated T-A Pro insert provided:

- ✓ Doubled tool life
- ✓ Decreased machine downtime
- ✓ Increased productivity
- ✓ 30% increased penetration rate
- ✓ Increased tool savings per year

Insert Comparison and Assembly Information

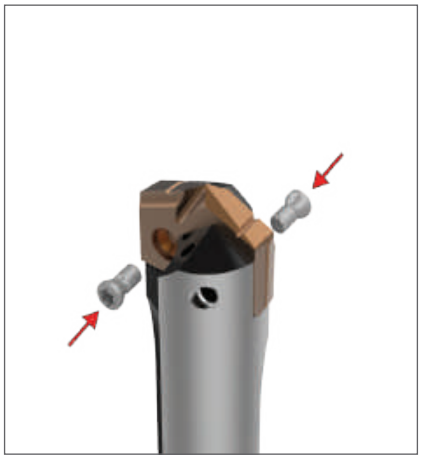
		 T-A Pro Inserts	 T-A GEN2 Inserts	 T-A Inserts
Recommended for increased productivity		✓		
ISO specific geometry/coating combination		✓		
Connects with T-A Pro holders		✓	✓	✓
Connects with T-A holders		✓	✓	✓



Step 1:
Align the flats on the T-A Pro insert with the flats on the ears of the holder.



Step 2:
Slide the insert into the precision ground locating pocket on the holder. The insert should not be turned, rotated, or twisted for locking purposes. The holder pocket and locating pads on the insert assure optimum fit and repeatability.

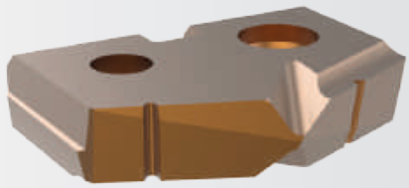


Step 3:
Apply a generous amount of E-Z Break® (provided in the packaging) onto the supplied TORX® Plus screws.

Tighten the TORX Plus screws to the recommended torque value specified in the catalog by series. A preset torx driver is available to assure that the proper torque is applied.

T-A Pro Drilling System Information

T-A Pro Drill Inserts



Advanced Design Capabilities

The advanced T-A Pro insert combines a coating and geometry specifically designed to achieve optimal results in ISO material drilling applications. With quick connectivity to existing T-A drill insert holders, the T-A Pro insert can be interchanged with previous T-A inserts with ease, resulting in minimal setup times so you can immediately increase your productivity.

T-A Pro Inserts Connect with:



T-A Pro holders



T-A holders

P - Steels

- Designed to provide increased penetration rates and tool life in steel applications
- Superior geometry and edge provides excellent chip control
- Allied's multilayer AM300 coating increases heat resistance and improves tool life



K - Cast Irons

- Uniquely designed for cast/ductile iron applications
- Geometry developed for maximum tool life, reduced exit burr, and improved hole finish
- Allied's multilayer TiAlN coating provides increased abrasion resistance and tool life



N - Non-ferrous Materials

- Designed for applications in aluminum, brass, and copper
- The geometry yields excellent chip control in these softer materials
- TiCN coating gives the versatility to run in a variety of materials while reducing buildup



M - Stainless Steel

COMING FEBRUARY

X - High-Speed Steel Materials

- Improved chip geometry for excellent chip control in all materials
- Allied's multilayer AM200 coating combines excellent heat resistance and high lubricity for wide application use

COMING JANUARY

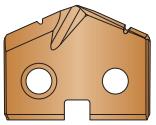


T-A Pro Drill Holders

			**STUB, 3xD, 5xD, 7xD, 10xD, 12xD, 15xD**
Straight flutes	Proprietary coolant outlets improve coolant flow	Provides increased insert life	Available in STUB, 3xD, 5xD, 7xD, 10xD, 12xD, and 15xD

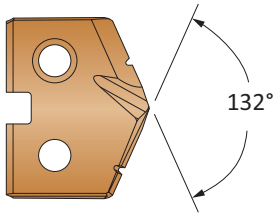
Product Nomenclature

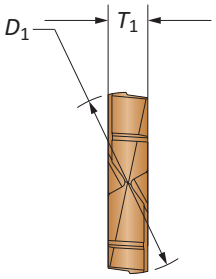
T-A Pro Drill Inserts



TA	P	0	–	15.00
1	2	3		4

1. T-A Pro Drill Insert	2. ISO Material / Geometry	3. Series	4. Diameter (mm)
TA = TA Pro insert	**P** = Steel **K** = Cast iron **N** = Non-ferrous **M** = Stainless Steel **X** = HSS	**Z** = Z series **0** = 0 series **1** = 1 series **2** = 2 series **3** = 3 series	For complete list of diameter ranges by series, see contents page.





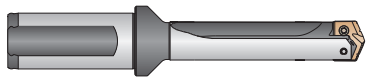
Reference Key

Symbol	Attribute
D_1	Insert diameter
T_1	Insert thickness

Product Nomenclature

T-A Pro Drill Holders

HTA	1	A	05	–	100	C
1	2	3	4		5	6

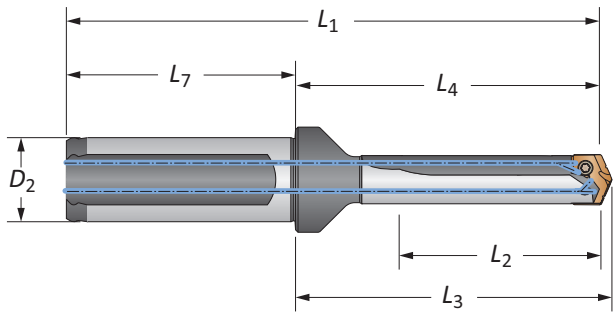


1. Holder	2. Series	3. Body Diameter	4. Length
HTA = TA Pro holder	**Z** = Z Series	**A** = A body diameter	**01** = Stub Length
	0 = 0 Series	**B** = B body diameter	**03** = 3x Diameter
	1 = 1 Series	**C** = C body diameter	**05** = 5x Diameter
	2 = 2 Series	**D** = D body diameter	**07** = 7x Diameter
	3 = 3 Series		**10** = 10x Diameter
			12 = 12x Diameter
			15 = 15x Diameter

5. Shank Diameter		6. Shank Style
Imperial (inch)	**Metric (mm)**	**F** = Flanged with flat
075 = 3/4"	**20** = 20mm	**FM** = Flanged metric with flat
100 = 1"	**25** = 25mm	**C** = Cylindrical (no flat)
125 = 1-1/4"	**32** = 32mm	**CM** = Cylindrical metric (no flat)
150 = 1-1/2"	**40** = 40mm	

Holder Ordering Information

The series designator (Z series, 0 series, etc.) in the top corner of each page is for your reference when ordering. Please refer to these series designators when placing an order. For example, a Z series drill insert only fits into a Z series holder.



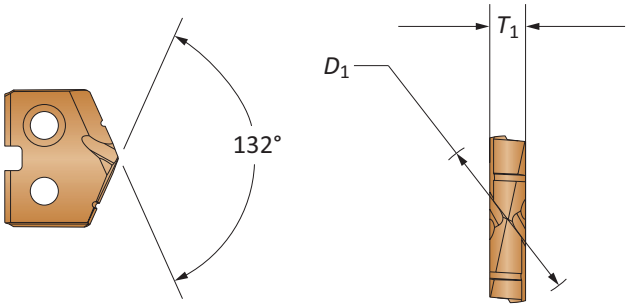
Reference Key

Symbol	Attribute
D_2	Shank diameter
L_1	Overall length
L_2	Drill depth
L_3	Holder reference length
L_4	Holder body length
L_7	Shank length

T-A Pro Carbide Drill Inserts

Z Series | Diameter Range: 0.437" - 0.499" (11.10mm - 12.69mm)





Insert					Part No.	Part No.	Part No.	Part No.
Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	P	K	N	M
Z-A	7/16	0.4374	11.11	3/32	**TAPZ-11.11**	**TAKZ-11.11**	**TANZ-11.11**	COMING FEBRUARY
Z-A		0.4409	11.20	3/32	**TAPZ-11.20**	**TAKZ-11.20**	**TANZ-11.20**	
Z-A		0.4449	11.30	3/32	**TAPZ-11.30**	**TAKZ-11.30**	**TANZ-11.30**	
Z-A		0.4488	11.40	3/32	**TAPZ-11.40**	**TAKZ-11.40**	**TANZ-11.40**	
Z-A		0.4528	11.50	3/32	**TAPZ-11.50**	**TAKZ-11.50**	**TANZ-11.50**	
Z-A	29/64	0.4531	11.51	3/32	**TAPZ-11.51**	**TAKZ-11.51**	**TANZ-11.51**	
Z-A		0.4567	11.60	3/32	**TAPZ-11.60**	**TAKZ-11.60**	**TANZ-11.60**	
Z-A		0.4606	11.70	3/32	**TAPZ-11.70**	**TAKZ-11.70**	**TANZ-11.70**	
Z-A		0.4646	11.80	3/32	**TAPZ-11.80**	**TAKZ-11.80**	**TANZ-11.80**	
Z-B	15/32	0.4689	11.91	3/32	**TAPZ-11.91**	**TAKZ-11.91**	**TANZ-11.91**	
Z-B		0.4724	12.00	3/32	**TAPZ-12.00**	**TAKZ-12.00**	**TANZ-12.00**	
Z-B		0.4764	12.10	3/32	**TAPZ-12.10**	**TAKZ-12.10**	**TANZ-12.10**	
Z-B		0.4803	12.20	3/32	**TAPZ-12.20**	**TAKZ-12.20**	**TANZ-12.20**	
Z-B	31/64	0.4843	12.30	3/32	**TAPZ-12.30**	**TAKZ-12.30**	**TANZ-12.30**	
Z-B		0.4882	12.40	3/32	**TAPZ-12.40**	**TAKZ-12.40**	**TANZ-12.40**	
Z-B		0.4921	12.50	3/32	**TAPZ-12.50**	**TAKZ-12.50**	**TANZ-12.50**	
Z-B		0.4961	12.60	3/32	**TAPZ-12.60**	**TAKZ-12.60**	**TANZ-12.60**	

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.

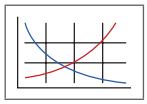

A Series Insert + A Series Holder


C Series Insert + A Series Holder

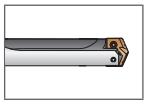

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61



A25: 12 - 13

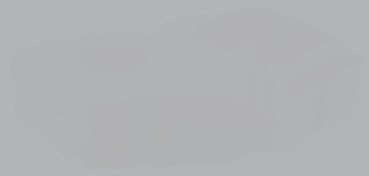


Sizes not shown are available upon request. When ordering, please follow the example below:	
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

COMING JANUARY

T-A Pro HSS Drill Inserts

Z Series | Diameter Range: 0.437" - 0.499" (11.10mm - 12.69mm)





Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	Insert Part No.
Z-A	7/16	0.4374	11.11	3/32	TAZ2-11430
Z-A		0.4409	11.20	3/32	TAZ2-11430
Z-A		0.4449	11.30	3/32	TAZ2-11430
Z-A		0.4488	11.40	3/32	TAZ2-11430
Z-A		0.4528	11.50	3/32	TAZ2-11430
Z-A	29/64	0.4531	11.51	3/32	TAZ2-11430
Z-A		0.4567	11.60	3/32	TAZ2-11430
Z-A		0.4606	11.70	3/32	TAZ2-11430
Z-A		0.4646	11.80	3/32	TAZ2-11430
Z-B	15/32	0.4688	11.91	3/32	TAZ2-11430
Z-B		0.4724	12.00	3/32	TAZ2-11430
Z-B		0.4764	12.10	3/32	TAZ2-11430
Z-B		0.4803	12.20	3/32	TAZ2-11430
Z-B	31/64	0.4843	12.30	3/32	TAZ2-11430
Z-B		0.4882	12.40	3/32	TAZ2-11430
Z-B		0.4921	12.50	3/32	TAZ2-11430
Z-B		0.4961	12.60	3/32	TAZ2-11430

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.

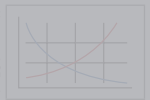

A Series Insert + A Series Holder


C Series Insert + A Series Holder

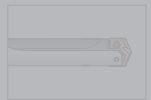

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61



A25: 12 - 13



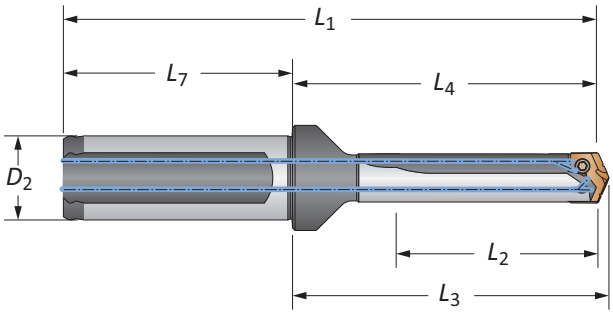
Key on A25: 1

Sizes not shown are available upon request. When ordering, please follow the example below:	
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

T-A Pro Drill Holders

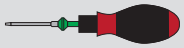
Z Series Imperial | Diameter Range: 0.437" - 0.499"





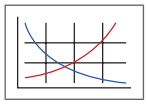
	Body						Shank			
	Length	Sub Series	L_2	L_4	L_3	L_1	L_7	D_2	Flat	Part No
	STUB	A	0.504	1.600	1.710	3.630	2.03	3/4	Yes	**HTAZA01-075F**
	STUB	A	0.504	1.600	1.710	3.630	2.03	3/4	No	**HTAZA01-075C**
	STUB	B	0.504	1.600	1.710	3.630	2.03	3/4	Yes	**HTAZB01-075F**
	STUB	B	0.504	1.600	1.710	3.630	2.03	3/4	No	**HTAZB01-075C**
	3xD	A	1.452	2.693	2.803	4.723	2.03	3/4	Yes	**HTAZA03-075F**
	3xD	A	1.452	2.693	2.803	4.723	2.03	3/4	No	**HTAZA03-075C**
	3xD	B	1.452	2.693	2.803	4.723	2.03	3/4	Yes	**HTAZB03-075F**
	3xD	B	1.452	2.693	2.803	4.723	2.03	3/4	No	**HTAZB03-075C**
	5xD	A	2.400	3.641	3.751	5.671	2.03	3/4	Yes	**HTAZA05-075F**
	5xD	A	2.400	3.641	3.751	5.671	2.03	3/4	No	**HTAZA05-075C**
	5xD	B	2.400	3.641	3.751	5.671	2.03	3/4	Yes	**HTAZB05-075F**
	5xD	B	2.400	3.641	3.751	5.671	2.03	3/4	No	**HTAZB05-075C**
	7xD	A	3.348	4.589	4.699	6.619	2.03	3/4	Yes	**HTAZA07-075F**
ⓘ	7xD	A	3.348	4.589	4.699	6.619	2.03	3/4	No	**HTAZA07-075C**
	7xD	B	3.348	4.589	4.699	6.619	2.03	3/4	Yes	**HTAZB07-075F**
	7xD	B	3.348	4.589	4.699	6.619	2.03	3/4	No	**HTAZB07-075C**
	10xD	A	4.770	6.011	6.121	8.041	2.03	3/4	Yes	⚠ **HTAZA10-075F**
	10xD	A	4.770	6.011	6.121	8.041	2.03	3/4	No	⚠ **HTAZA10-075C**
	10xD	B	4.770	6.011	6.121	8.041	2.03	3/4	Yes	⚠ **HTAZB10-075F**
	10xD	B	4.770	6.011	6.121	8.041	2.03	3/4	No	⚠ **HTAZB10-075C**
	12xD	A	5.718	6.959	7.069	8.989	2.03	3/4	Yes	⚠ **HTAZA12-075F**
	12xD	A	5.718	6.959	7.069	8.989	2.03	3/4	No	⚠ **HTAZA12-075C**
	12xD	B	5.718	6.959	7.069	8.989	2.03	3/4	Yes	⚠ **HTAZB12-075F**
	12xD	B	5.718	6.959	7.069	8.989	2.03	3/4	No	⚠ **HTAZB12-075C**
	15xD	A	7.140	8.381	8.491	10.411	2.03	3/4	Yes	⚠ **HTAZA15-075F**
	15xD	A	7.140	8.381	8.491	10.411	2.03	3/4	No	⚠ **HTAZA15-075C**
	15xD	B	7.140	8.381	8.491	10.411	2.03	3/4	Yes	⚠ **HTAZB15-075F**
	15xD	B	7.140	8.381	8.491	10.411	2.03	3/4	No	⚠ **HTAZB15-075C**

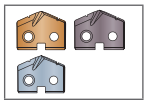
Connection Accessories

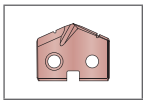
 Insert Screws	 Nylon Locking Screws	 Insert Driver	 Preset Torque Hand Driver	Replacement Tips	Admissible Tightening Torque*
7247-IP7-1	7247N-IP7-1	8IP-7	8IP-7TL	8IP-7B	7.4 in-lbs (84 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

⚠ **WARNING** Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
ext: **7611** | *email:* **appeng@alliedmachine.com**

A25: 58 - 61
Key on A25: 1


A25: 10


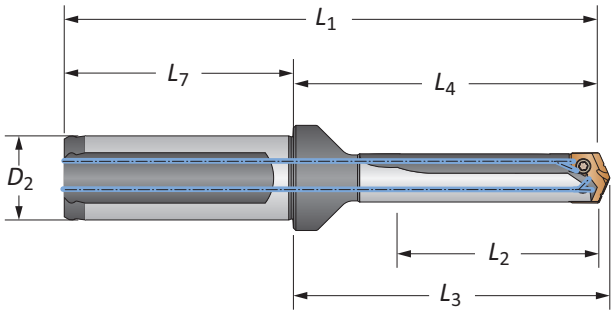
A25: 11


ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Drill Holders

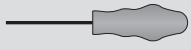
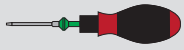
Z Series Metric | Diameter Range: 11.11mm - 12.69mm





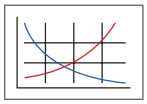
	Length	Sub Series	Body L_2	Body L_4	Body L_3	Body L_1	Shank L_7	Shank D_2	Flat	Part No
	STUB	A	12.8	40.7	43.4	90.7	50	20	Yes	**HTAZA01-20FM**
	STUB	A	12.8	40.7	43.4	90.7	50	20	No	**HTAZA01-20CM**
	STUB	B	12.8	40.7	43.4	90.7	50	20	Yes	**HTAZB01-20FM**
	STUB	B	12.8	40.7	43.4	90.7	50	20	No	**HTAZB01-20CM**
	3xD	A	36.9	68.4	71.2	118.4	50	20	Yes	**HTAZA03-20FM**
	3xD	A	36.9	68.4	71.2	118.4	50	20	No	**HTAZA03-20CM**
	3xD	B	36.9	68.4	71.2	118.4	50	20	Yes	**HTAZB03-20FM**
	3xD	B	36.9	68.4	71.2	118.4	50	20	No	**HTAZB03-20CM**
	5xD	A	61.0	92.5	95.3	142.5	50	20	Yes	**HTAZA05-20FM**
	5xD	A	61.0	92.5	95.3	142.5	50	20	No	**HTAZA05-20CM**
	5xD	B	61.0	92.5	95.3	142.5	50	20	Yes	**HTAZB05-20FM**
	5xD	B	61.0	92.5	95.3	142.5	50	20	No	**HTAZB05-20CM**
	7xD	A	85.0	116.5	119.3	166.6	50	20	Yes	**HTAZA07-20FM**
ⓜ	7xD	A	85.0	116.5	119.3	166.6	50	20	No	**HTAZA07-20CM**
	7xD	B	85.0	116.5	119.3	166.6	50	20	Yes	**HTAZB07-20FM**
	7xD	B	85.0	116.5	119.3	166.6	50	20	No	**HTAZB07-20CM**
	10xD	A	121.2	152.7	155.5	202.7	50	20	Yes	⚠ **HTAZA10-20FM**
	10xD	A	121.2	152.7	155.5	202.7	50	20	No	⚠ **HTAZA10-20CM**
	10xD	B	121.2	152.7	155.5	202.7	50	20	Yes	⚠ **HTAZB10-20FM**
	10xD	B	121.2	152.7	155.5	202.7	50	20	No	⚠ **HTAZB10-20CM**
	12xD	A	145.2	176.7	179.5	226.8	50	20	Yes	⚠ **HTAZA12-20FM**
	12xD	A	145.2	176.7	179.5	226.8	50	20	No	⚠ **HTAZA12-20CM**
	12xD	B	145.2	176.7	179.5	226.8	50	20	Yes	⚠ **HTAZB12-20FM**
	12xD	B	145.2	176.7	179.5	226.8	50	20	No	⚠ **HTAZB12-20CM**
	15xD	A	181.4	212.9	215.7	262.9	50	20	Yes	⚠ **HTAZA15-20FM**
	15xD	A	181.4	212.9	215.7	262.9	50	20	No	⚠ **HTAZA15-20CM**
	15xD	B	181.4	212.9	215.7	262.9	50	20	Yes	⚠ **HTAZB15-20FM**
	15xD	B	181.4	212.9	215.7	262.9	50	20	No	⚠ **HTAZB15-20CM**

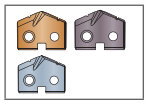
Connection Accessories

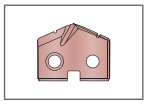
 Insert Screws	 Nylon Locking Screws	 Insert Driver	 Preset Torque Hand Driver	 Replacement Tips	Admissible Tightening Torque*
7247-IP7-1	7247N-IP7-1	8IP-7	8IP-7TL	8IP-7B	7.4 in-lbs (84 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

⚠ WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
ext: **7611** | *email:* **appeng@alliedmachine.com**

A25: 58 - 61 
Key on A25: 1

A25: 10 

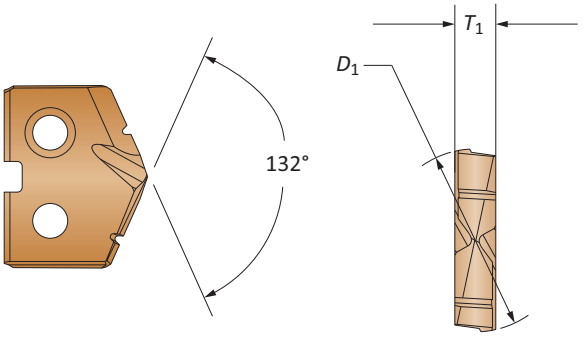
A25: 11 

ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Carbide Drill Inserts

0 Series | Diameter Range: 0.500" - 0.694" (12.70mm - 17.64mm)





Insert								
Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	Part No. P	Part No. K	Part No. N	Part No. M
0-A	1/2	0.5000	12.70	1/8	TAP0-12.70	TAK0-12.70	TAN0-12.70	COMING FEBRUARY
0-A		0.5039	12.80	1/8	TAP0-12.80	TAK0-12.80	TAN0-12.80	
0-A		0.5079	12.90	1/8	TAP0-12.90	TAK0-12.90	TAN0-12.90	
0-A		0.5118	13.00	1/8	TAP0-13.00	TAK0-13.00	TAN0-13.00	
0-A	33/64	0.5157	13.10	1/8	TAP0-13.10	TAK0-13.10	TAN0-13.10	
0-A		0.5197	13.20	1/8	TAP0-13.20	TAK0-13.20	TAN0-13.20	
0-A		0.5236	13.30	1/8	TAP0-13.30	TAK0-13.30	TAN0-13.30	
0-A		0.5276	13.40	1/8	TAP0-13.40	TAK0-13.40	TAN0-13.40	
0-A	17/32	0.5311	13.49	1/8	TAP0-13.49	TAK0-13.49	TAN0-13.49	
0-A		0.5315	13.50	1/8	TAP0-13.50	TAK0-13.50	TAN0-13.50	
0-A		0.5354	13.60	1/8	TAP0-13.60	TAK0-13.60	TAN0-13.60	
0-A		0.5394	13.70	1/8	TAP0-13.70	TAK0-13.70	TAN0-13.70	
0-A		0.5433	13.80	1/8	TAP0-13.80	TAK0-13.80	TAN0-13.80	
0-A	35/64	0.5469	13.89	1/8	TAP0-13.89	TAK0-13.89	TAN0-13.89	
0-B		0.5512	14.00	1/8	TAP0-14.00	TAK0-14.00	TAN0-14.00	
0-B		0.5551	14.10	1/8	TAP0-14.10	TAK0-14.10	TAN0-14.10	
0-B		0.5591	14.20	1/8	TAP0-14.20	TAK0-14.20	TAN0-14.20	
0-B	9/16	0.5626	14.29	1/8	TAP0-14.29	TAK0-14.29	TAN0-14.29	
0-B		0.5669	14.40	1/8	TAP0-14.40	TAK0-14.40	TAN0-14.40	
0-B		0.5709	14.50	1/8	TAP0-14.50	TAK0-14.50	TAN0-14.50	
0-B		0.5748	14.60	1/8	TAP0-14.60	TAK0-14.60	TAN0-14.60	
0-B	13/64	0.5780	14.68	1/8	TAP0-14.68	TAK0-14.68	TAN0-14.68	
0-B		0.5827	14.80	1/8	TAP0-14.80	TAK0-14.80	TAN0-14.80	
0-B		0.5866	14.90	1/8	TAP0-14.90	TAK0-14.90	TAN0-14.90	
0-B		0.5906	15.00	1/8	TAP0-15.00	TAK0-15.00	TAN0-15.00	

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.

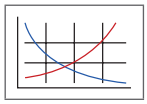

A Series Insert + A Series Holder


C Series Insert + A Series Holder

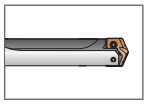

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61



A25: 18 - 21



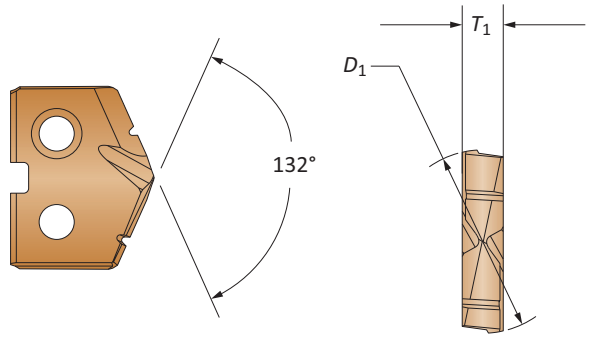
Sizes not shown are available upon request.
When ordering, please follow the example below:

Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

T-A Pro Carbide Drill Inserts

0 Series | Diameter Range: 0.500" - 0.694" (12.70mm - 17.64mm)





Insert					Part No.	Part No.	Part No.	Part No.
Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	P	K	N	M
0-C	19/32	0.5937	15.08	1/8	TAP0-15.08	TAK0-15.08	TAN0-15.08	COMING FEBRUARY
0-C		0.5984	15.20	1/8	TAP0-15.20	TAK0-15.20	TAN0-15.20	
0-C		0.6004	15.25	1/8	TAP0-15.25	TAK0-15.25	TAN0-15.25	
0-C		0.6024	15.30	1/8	TAP0-15.30	TAK0-15.30	TAN0-15.30	
0-C		0.6063	15.40	1/8	TAP0-15.40	TAK0-15.40	TAN0-15.40	
0-C	33/64	0.6094	15.48	1/8	TAP0-15.48	TAK0-15.48	TAN0-15.48	
0-C		0.6102	15.50	1/8	TAP0-15.50	TAK0-15.50	TAN0-15.50	
0-C		0.6142	15.60	1/8	TAP0-15.60	TAK0-15.60	TAN0-15.60	
0-C		0.6181	15.70	1/8	TAP0-15.70	TAK0-15.70	TAN0-15.70	
0-C		0.6220	15.80	1/8	TAP0-15.80	TAK0-15.80	TAN0-15.80	
0-C	5/8	0.6252	15.88	1/8	TAP0-15.88	TAK0-15.88	TAN0-15.88	
0-C		0.6299	16.00	1/8	TAP0-16.00	TAK0-16.00	TAN0-16.00	
0-C		0.6331	16.08	1/8	TAP0-16.08	TAK0-16.08	TAN0-16.08	
0-C		0.6378	16.20	1/8	TAP0-16.20	TAK0-16.20	TAN0-16.20	
0-C	41/64	0.6406	16.27	1/8	TAP0-16.27	TAK0-16.27	TAN0-16.27	
0-C		0.6457	16.40	1/8	TAP0-16.40	TAK0-16.40	TAN0-16.40	
0-D		0.6496	16.50	1/8	TAP0-16.50	TAK0-16.50	TAN0-16.50	
0-D		0.6535	16.60	1/8	TAP0-16.60	TAK0-16.60	TAN0-16.60	
0-D	21/32	0.6563	16.67	1/8	TAP0-16.67	TAK0-16.67	TAN0-16.67	
0-D		0.6614	16.80	1/8	TAP0-16.80	TAK0-16.80	TAN0-16.80	
0-D		0.6654	16.90	1/8	TAP0-16.90	TAK0-16.90	TAN0-16.90	
0-D		0.6693	17.00	1/8	TAP0-17.00	TAK0-17.00	TAN0-17.00	
0-D	43/64	0.6720	17.07	1/8	TAP0-17.07	TAK0-17.07	TAN0-17.07	
0-D		0.6732	17.10	1/8	TAP0-17.10	TAK0-17.10	TAN0-17.10	
0-D		0.6772	17.20	1/8	TAP0-17.20	TAK0-17.20	TAN0-17.20	
0-D		0.6811	17.30	1/8	TAP0-17.30	TAK0-17.30	TAN0-17.30	
0-D		0.6850	17.40	1/8	TAP0-17.40	TAK0-17.40	TAN0-17.40	
0-D	11/16	0.6874	17.46	1/8	TAP0-17.46	TAK0-17.46	TAN0-17.46	
0-D		0.6890	17.50	1/8	TAP0-17.50	TAK0-17.50	TAN0-17.50	
0-D		0.6929	17.60	1/8	TAP0-17.60	TAK0-17.60	TAN0-17.60	

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.

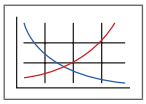

A Series Insert + A Series Holder


C Series Insert + A Series Holder

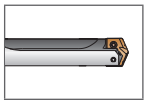

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61



A25: 18 - 21



Sizes not shown are available upon request. When ordering, please follow the example below:	
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

COMING JANUARY

T-A Pro HSS Drill …

0 Series … 0.694" (12.70mm - 17.64mm)





Series	Fractional Equivalent	Insert D_1 Inch	D_1 mm	T_1	Part No.
0-A	1/2	0.5000	12.70	1/8	TAP0-12.70
0-A		0.5039	12.80	1/8	TAP0-12.80
0-A		0.5079	12.90	1/8	TAP0-12.90
0-A		0.5118	13.00	1/8	TAP0-13.00
0-A	33/64	0.5157	13.10	1/8	TAP0-13.10
0-A		0.5197	13.20	1/8	TAP0-13.20
0-A		0.5236	13.30	1/8	TAP0-13.30
0-A		0.5276	13.40	1/8	TAP0-13.40
0-A	17/32	0.5311	13.49	1/8	TAP0-13.49
0-A		0.5315	13.50	1/8	TAP0-13.50
0-A		0.5354	13.60	1/8	TAP0-13.60
0-A		0.5394	13.70	1/8	TAP0-13.70
0-A		0.5433	13.80	1/8	TAP0-13.80
0-A	35/64	0.5469	13.89	1/8	TAP0-13.89
0-B		0.5512	14.00	1/8	TAP0-14.00
0-B		0.5551	14.10	1/8	TAP0-14.10
0-B		0.5591	14.20	1/8	TAP0-14.20
0-B	9/16	0.5625	14.29	1/8	TAP0-14.29
0-B		0.5669	14.40	1/8	TAP0-14.40
0-B		0.5709	14.50	1/8	TAP0-14.50
0-B		0.5748	14.60	1/8	TAP0-14.60
0-B	37/64	0.5781	14.68	1/8	TAP0-14.68
0-B		0.5827	14.80	1/8	TAP0-14.80
0-B		0.5866	14.90	1/8	TAP0-14.90
0-B		0.5906	15.00	1/8	TAP0-15.00

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.



A Series Insert + A Series Holder



C Series Insert + A Series Holder

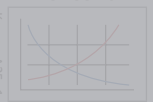


C Series Insert + C Series Holder

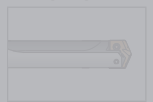


A Series Insert + C Series Holder

A25: 58 - 61



A25: 18 - 21



Key on A25: 1

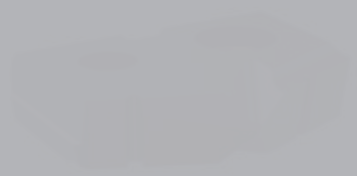
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When ordering, please follow the example below:

Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

COMING JANUARY

T-A Pro HSS Drill Inserts

0 Series | Diameter Range: 0.500" - 0.694" (12.70mm - 17.64mm)





Series	Fractional Equivalent	D_2 inch	D_1 mm	T_1	Insert Part No.
0-C	19/32	0.5937	15.08	1/8	TAX0-15.08
0-C		0.5984	15.20	1/8	TAX0-15.20
0-C		0.6004	15.25	1/8	TAX0-15.25
0-C		0.6024	15.30	1/8	TAX0-15.30
0-C		0.6063	15.40	1/8	TAX0-15.40
0-C	33/64	0.6094	15.48	1/8	TAX0-15.48
0-C		0.6102	15.50	1/8	TAX0-15.50
0-C		0.6142	15.60	1/8	TAX0-15.60
0-C		0.6181	15.70	1/8	TAX0-15.70
0-C		0.6220	15.80	1/8	TAX0-15.80
0-C	5/8	0.6252	15.88	1/8	TAX0-15.88
0-C		0.6299	16.00	1/8	TAX0-16.00
0-C		0.6331	16.08	1/8	TAX0-16.08
0-C		0.6378	16.20	1/8	TAX0-16.20
0-C	41/64	0.6406	16.27	1/8	TAX0-16.27
0-C		0.6457	16.40	1/8	TAX0-16.40
0-D		0.6496	16.50	1/8	TAX0-16.50
0-D		0.6535	16.60	1/8	TAX0-16.60
0-D	21/32	0.6563	16.67	1/8	TAX0-16.67
0-D		0.6614	16.80	1/8	TAX0-16.80
0-D		0.6654	16.90	1/8	TAX0-16.90
0-D		0.6693	17.00	1/8	TAX0-17.00
0-D	43/64	0.6730	17.07	1/8	TAX0-17.07
0-D		0.6732	17.10	1/8	TAX0-17.10
0-D		0.6772	17.20	1/8	TAX0-17.20
0-D		0.6811	17.30	1/8	TAX0-17.30
0-D		0.6850	17.40	1/8	TAX0-17.40
0-D	11/16	0.6874	17.45	1/8	TAX0-17.45
0-D		0.6890	17.50	1/8	TAX0-17.50
0-D		0.6929	17.60	1/8	TAX0-17.60

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.



A Series Insert + A Series Holder



C Series Insert + A Series Holder

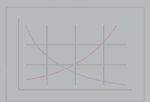


C Series Insert + C Series Holder

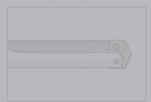


A Series Insert + C Series Holder

A25: 58 - 61



A25: 18 - 21



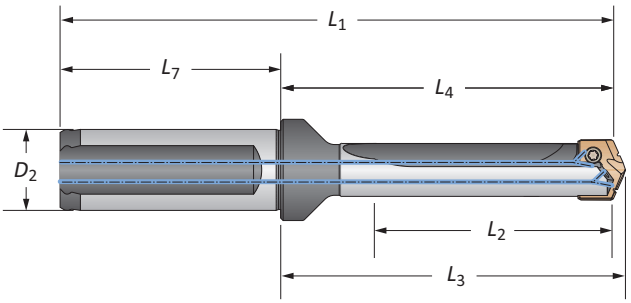
Key on A25.1

Sizes not shown are available upon request. When ordering, please follow the example below:	
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

T-A Pro Drill Holders

0 Series Imperial | Diameter Range: 0.500" - 0.694"





	Length	Sub Series	Body L_2	Body L_4	Body L_3	Body L_1	Shank L_7	Shank D_2	Flat	Part No
	STUB	A	0.603	1.731	1.838	3.761	2.03	3/4	Yes	**HTA0A01-075F**
	STUB	A	0.603	1.731	1.838	3.761	2.03	3/4	No	**HTA0A01-075C**
	STUB	B	0.603	1.731	1.838	3.761	2.03	3/4	Yes	**HTA0B01-075F**
	STUB	B	0.603	1.731	1.838	3.761	2.03	3/4	No	**HTA0B01-075C**
	STUB	C	0.603	1.731	1.838	3.761	2.03	3/4	Yes	**HTA0C01-075F**
	STUB	C	0.603	1.731	1.838	3.761	2.03	3/4	No	**HTA0C01-075C**
	STUB	D	0.603	1.731	1.838	3.761	2.03	3/4	Yes	**HTA0D01-075F**
	STUB	D	0.603	1.731	1.838	3.761	2.03	3/4	No	**HTA0D01-075C**
	3xD	A	1.809	3.064	3.171	5.094	2.03	3/4	Yes	**HTA0A03-075F**
	3xD	A	1.809	3.064	3.171	5.094	2.03	3/4	No	**HTA0A03-075C**
	3xD	B	1.809	3.064	3.171	5.094	2.03	3/4	Yes	**HTA0B03-075F**
	3xD	B	1.809	3.064	3.171	5.094	2.03	3/4	No	**HTA0B03-075C**
	3xD	C	1.809	3.064	3.171	5.094	2.03	3/4	Yes	**HTA0C03-075F**
	3xD	C	1.809	3.064	3.171	5.094	2.03	3/4	No	**HTA0C03-075C**
	3xD	D	1.809	3.064	3.171	5.094	2.03	3/4	Yes	**HTA0D03-075F**
ⓘ	3xD	D	1.809	3.064	3.171	5.094	2.03	3/4	No	**HTA0D03-075C**
	5xD	A	3.015	4.270	4.377	6.300	2.03	3/4	Yes	**HTA0A05-075F**
	5xD	A	3.015	4.270	4.377	6.300	2.03	3/4	No	**HTA0A05-075C**
	5xD	B	3.015	4.270	4.377	6.300	2.03	3/4	Yes	**HTA0B05-075F**
	5xD	B	3.015	4.270	4.377	6.300	2.03	3/4	No	**HTA0B05-075C**
	5xD	C	3.015	4.270	4.377	6.300	2.03	3/4	Yes	**HTA0C05-075F**
	5xD	C	3.015	4.270	4.377	6.300	2.03	3/4	No	**HTA0C05-075C**
	5xD	D	3.015	4.270	4.377	6.300	2.03	3/4	Yes	**HTA0D05-075F**
	5xD	D	3.015	4.270	4.377	6.300	2.03	3/4	No	**HTA0D05-075C**
	7xD	A	4.221	5.476	5.583	7.506	2.03	3/4	Yes	**HTA0A07-075F**
	7xD	A	4.221	5.476	5.583	7.506	2.03	3/4	No	**HTA0A07-075C**
	7xD	B	4.221	5.476	5.583	7.506	2.03	3/4	Yes	**HTA0B07-075F**
	7xD	B	4.221	5.476	5.583	7.506	2.03	3/4	No	**HTA0B07-075C**
	7xD	C	4.221	5.476	5.583	7.506	2.03	3/4	Yes	**HTA0C07-075F**
	7xD	C	4.221	5.476	5.583	7.506	2.03	3/4	No	**HTA0C07-075C**
	7xD	D	4.221	5.476	5.583	7.506	2.03	3/4	Yes	**HTA0D07-075F**
	7xD	D	4.221	5.476	5.583	7.506	2.03	3/4	No	**HTA0D07-075C**

Connection Accessories

	Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Admissible Tightening Torque*
A/B	72556-IP8-1	72556N-IP8-1	8IP-8	8IP-8TL	8IP-8B	15.5 in-lbs (175 N-cm)
C/D	72557-IP8-1	72557N-IP8-1	8IP-8	8IP-8TL	8IP-8B	15.5 in-lbs (175 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
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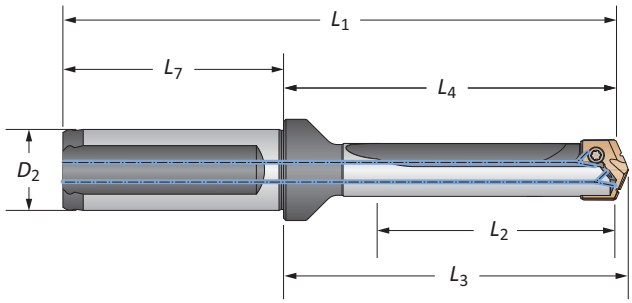
A25: 58 - 61
Key on A25: 1
A25: 14 - 15
A25: 16 - 17

ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Drill Holders

0 Series Imperial | Diameter Range: 0.500" - 0.694"





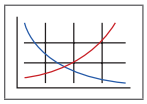
	Length	Sub Series	Body L_2	Body L_4	Body L_3	Body L_1	Shank L_7	Shank D_2	Flat	Part No
	10xD	A	6.030	7.285	7.392	9.315	2.03	3/4	Yes	HTA0A10-075F
	10xD	A	6.030	7.285	7.392	9.315	2.03	3/4	No	HTA0A10-075C
	10xD	B	6.030	7.285	7.392	9.315	2.03	3/4	Yes	HTA0B10-075F
	10xD	B	6.030	7.285	7.392	9.315	2.03	3/4	No	HTA0B10-075C
	10xD	C	6.030	7.285	7.392	9.315	2.03	3/4	Yes	HTA0C10-075F
	10xD	C	6.030	7.285	7.392	9.315	2.03	3/4	No	HTA0C10-075C
	10xD	D	6.030	7.285	7.392	9.315	2.03	3/4	Yes	HTA0D10-075F
	10xD	D	6.030	7.285	7.392	9.315	2.03	3/4	No	HTA0D10-075C
	12xD	A	7.236	8.491	8.598	10.521	2.03	3/4	Yes	HTA0A12-075F
	12xD	A	7.236	8.491	8.598	10.521	2.03	3/4	No	HTA0A12-075C
	12xD	B	7.236	8.491	8.598	10.521	2.03	3/4	Yes	HTA0B12-075F
ⓘ	12xD	B	7.236	8.491	8.598	10.521	2.03	3/4	No	HTA0B12-075C
	12xD	C	7.236	8.491	8.598	10.521	2.03	3/4	Yes	HTA0C12-075F
	12xD	C	7.236	8.491	8.598	10.521	2.03	3/4	No	HTA0C12-075C
	12xD	D	7.236	8.491	8.598	10.521	2.03	3/4	Yes	HTA0D12-075F
	12xD	D	7.236	8.491	8.598	10.521	2.03	3/4	No	HTA0D12-075C
	15xD	A	9.045	10.300	10.407	12.330	2.03	3/4	Yes	HTA0A15-075F
	15xD	A	9.045	10.300	10.407	12.330	2.03	3/4	No	HTA0A15-075C
	15xD	B	9.045	10.300	10.407	12.330	2.03	3/4	Yes	HTA0B15-075F
	15xD	B	9.045	10.300	10.407	12.330	2.03	3/4	No	HTA0B15-075C
	15xD	C	9.045	10.300	10.407	12.330	2.03	3/4	Yes	HTA0C15-075F
	15xD	C	9.045	10.300	10.407	12.330	2.03	3/4	No	HTA0C15-075C
	15xD	D	9.045	10.300	10.407	12.330	2.03	3/4	Yes	HTA0D15-075F
	15xD	D	9.045	10.300	10.407	12.330	2.03	3/4	No	HTA0D15-075C

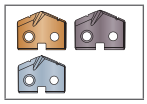
Connection Accessories

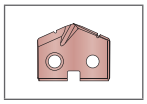
	Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Admissible Tightening Torque*
A/B	72556-IP8-1	72556N-IP8-1	8IP-8	8IP-8TL	8IP-8B	15.5 in-lbs (175 N-cm)
C/D	72557-IP8-1	72557N-IP8-1	8IP-8	8IP-8TL	8IP-8B	15.5 in-lbs (175 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
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A25: 58 - 61 
Key on A25: 1

A25: 14 - 15 

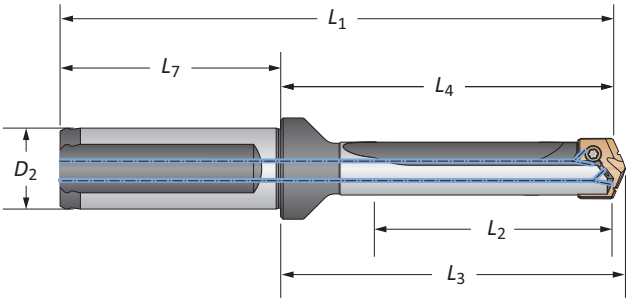
A25: 16 - 17 

ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Drill Holders

0 Series Metric | Diameter Range: 12.70mm - 17.64mm





	Length	Sub Series	Body L_2	Body L_4	Body L_3	Body L_1	Shank L_7	Shank D_2	Shank Flat	Part No
	STUB	A	15.3	44.0	46.7	95.5	51.6	20	Yes	**HTA0A01-20FM**
	STUB	A	15.3	44.0	46.7	95.5	51.6	20	No	**HTA0A01-20CM**
	STUB	B	15.3	44.0	46.7	95.5	51.6	20	Yes	**HTA0B01-20FM**
	STUB	B	15.3	44.0	46.7	95.5	51.6	20	No	**HTA0B01-20CM**
	STUB	C	15.3	44.0	46.7	95.5	51.6	20	Yes	**HTA0C01-20FM**
	STUB	C	15.3	44.0	46.7	95.5	51.6	20	No	**HTA0C01-20CM**
	STUB	D	15.3	44.0	46.7	95.5	51.6	20	Yes	**HTA0D01-20FM**
	STUB	D	15.3	44.0	46.7	95.5	51.6	20	No	**HTA0D01-20CM**
	3xD	A	45.9	77.8	80.5	129.4	51.6	20	Yes	**HTA0A03-20FM**
	3xD	A	45.9	77.8	80.5	129.4	51.6	20	No	**HTA0A03-20CM**
	3xD	B	45.9	77.8	80.5	129.4	51.6	20	Yes	**HTA0B03-20FM**
	3xD	B	45.9	77.8	80.5	129.4	51.6	20	No	**HTA0B03-20CM**
	3xD	C	45.9	77.8	80.5	129.4	51.6	20	Yes	**HTA0C03-20FM**
	3xD	C	45.9	77.8	80.5	129.4	51.6	20	No	**HTA0C03-20CM**
	3xD	D	45.9	77.8	80.5	129.4	51.6	20	Yes	**HTA0D03-20FM**
ⓜ	3xD	D	45.9	77.8	80.5	129.4	51.6	20	No	**HTA0D03-20CM**
	5xD	A	76.6	108.5	111.2	160.0	51.6	20	Yes	**HTA0A05-20FM**
	5xD	A	76.6	108.5	111.2	160.0	51.6	20	No	**HTA0A05-20CM**
	5xD	B	76.6	108.5	111.2	160.0	51.6	20	Yes	**HTA0B05-20FM**
	5xD	B	76.6	108.5	111.2	160.0	51.6	20	No	**HTA0B05-20CM**
	5xD	C	76.6	108.5	111.2	160.0	51.6	20	Yes	**HTA0C05-20FM**
	5xD	C	76.6	108.5	111.2	160.0	51.6	20	No	**HTA0C05-20CM**
	5xD	D	76.6	108.5	111.2	160.0	51.6	20	Yes	**HTA0D05-20FM**
	5xD	D	76.6	108.5	111.2	160.0	51.6	20	No	**HTA0D05-20CM**
	7xD	A	107.2	139.1	141.8	190.7	51.6	20	Yes	**HTA0A07-20FM**
	7xD	A	107.2	139.1	141.8	190.7	51.6	20	No	**HTA0A07-20CM**
	7xD	B	107.2	139.1	141.8	190.7	51.6	20	Yes	**HTA0B07-20FM**
	7xD	B	107.2	139.1	141.8	190.7	51.6	20	No	**HTA0B07-20CM**
	7xD	C	107.2	139.1	141.8	190.7	51.6	20	Yes	**HTA0C07-20FM**
	7xD	C	107.2	139.1	141.8	190.7	51.6	20	No	**HTA0C07-20CM**
	7xD	D	107.2	139.1	141.8	190.7	51.6	20	Yes	**HTA0D07-20FM**
	7xD	D	107.2	139.1	141.8	190.7	51.6	20	No	**HTA0D07-20CM**

Connection Accessories

	Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Admissible Tightening Torque*
A/B	72556-IP8-1	72556N-IP8-1	8IP-8	8IP-8TL	8IP-8B	15.5 in-lbs (175 N-cm)
C/D	72557-IP8-1	72557N-IP8-1	8IP-8	8IP-8TL	8IP-8B	15.5 in-lbs (175 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

⚠ WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
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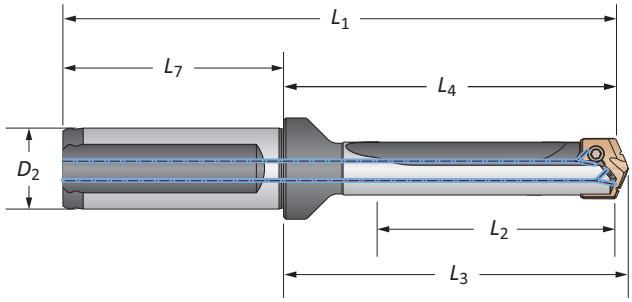
A25: 58 - 61
Key on A25: 1
A25: 14 - 15
A25: 16 - 17

ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Drill Holders

0 Series Metric | Diameter Range: 12.70mm - 17.64mm





	Length	Sub Series	Body L_2	Body L_4	Body L_3	Body L_1	Shank L_7	Shank D_2	Flat	Part No
	10xD	A	153.2	185.0	187.8	236.6	51.6	20	Yes	HTA0A10-20FM
	10xD	A	153.2	185.0	187.8	236.6	51.6	20	No	HTA0A10-20CM
	10xD	B	153.2	185.0	187.8	236.6	51.6	20	Yes	HTA0B10-20FM
	10xD	B	153.2	185.0	187.8	236.6	51.6	20	No	HTA0B10-20CM
	10xD	C	153.2	185.0	187.8	236.6	51.6	20	Yes	HTA0C10-20FM
	10xD	C	153.2	185.0	187.8	236.6	51.6	20	No	HTA0C10-20CM
	10xD	D	153.2	185.0	187.8	236.6	51.6	20	Yes	HTA0D10-20FM
	10xD	D	153.2	185.0	187.8	236.6	51.6	20	No	HTA0D10-20CM
	12xD	A	183.8	215.7	218.4	267.2	51.6	20	Yes	HTA0A12-20FM
	12xD	A	183.8	215.7	218.4	267.2	51.6	20	No	HTA0A12-20CM
	12xD	B	183.8	215.7	218.4	267.2	51.6	20	Yes	HTA0B12-20FM
ⓜ	12xD	B	183.8	215.7	218.4	267.2	51.6	20	No	HTA0B12-20CM
	12xD	C	183.8	215.7	218.4	267.2	51.6	20	Yes	HTA0C12-20FM
	12xD	C	183.8	215.7	218.4	267.2	51.6	20	No	HTA0C12-20CM
	12xD	D	183.8	215.7	218.4	267.2	51.6	20	Yes	HTA0D12-20FM
	12xD	D	183.8	215.7	218.4	267.2	51.6	20	No	HTA0D12-20CM
	15xD	A	229.7	261.6	264.3	313.2	51.6	20	Yes	HTA0A15-20FM
	15xD	A	229.7	261.6	264.3	313.2	51.6	20	No	HTA0A15-20CM
	15xD	B	229.7	261.6	264.3	313.2	51.6	20	Yes	HTA0B15-20FM
	15xD	B	229.7	261.6	264.3	313.2	51.6	20	No	HTA0B15-20CM
	15xD	C	229.7	261.6	264.3	313.2	51.6	20	Yes	HTA0C15-20FM
	15xD	C	229.7	261.6	264.3	313.2	51.6	20	No	HTA0C15-20CM
	15xD	D	229.7	261.6	264.3	313.2	51.6	20	Yes	HTA0D15-20FM
	15xD	D	229.7	261.6	264.3	313.2	51.6	20	No	HTA0D15-20CM

Connection Accessories

	Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Admissible Tightening Torque*
A/B	72556-IP8-1	72556N-IP8-1	8IP-8	8IP-8TL	8IP-8B	15.5 in-lbs (175 N-cm)
C/D	72557-IP8-1	72557N-IP8-1	8IP-8	8IP-8TL	8IP-8B	15.5 in-lbs (175 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

⚠ WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
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A25: 58 - 61 A25: 14 - 15 A25: 16 - 17

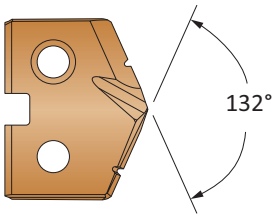
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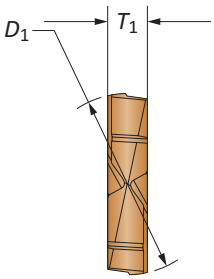
ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Carbide Drill Inserts

1 Series | Diameter Range: 0.695" - 0.959" (17.65mm - 24.37mm)







Insert								
Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	Part No. P	Part No. K	Part No. N	Part No. M
1-A		0.6969	17.70	5/32	TAP1-17.70	TAK1-17.70	TAN1-17.70	
1-A		0.7008	17.80	5/32	TAP1-17.80	TAK1-17.80	TAN1-17.80	
1-A	45/64	0.7031	17.86	5/32	TAP1-17.86	TAK1-17.86	TAN1-17.86	
1-A		0.7047	17.90	5/32	TAP1-17.90	TAK1-17.90	TAN1-17.90	
1-A		0.7087	18.00	5/32	TAP1-18.00	TAK1-18.00	TAN1-18.00	
1-A		0.7126	18.10	5/32	TAP1-18.10	TAK1-18.10	TAN1-18.10	
1-A		0.7165	18.20	5/32	TAP1-18.20	TAK1-18.20	TAN1-18.20	
1-A	23/32	0.7189	18.26	5/32	TAP1-18.26	TAK1-18.26	TAN1-18.26	
1-A		0.7205	18.30	5/32	TAP1-18.30	TAK1-18.30	TAN1-18.30	
1-A		0.7244	18.40	5/32	TAP1-18.40	TAK1-18.40	TAN1-18.40	
1-A		0.7283	18.50	5/32	TAP1-18.50	TAK1-18.50	TAN1-18.50	
1-A		0.7323	18.60	5/32	TAP1-18.60	TAK1-18.60	TAN1-18.60	
1-A	47/64	0.7343	18.65	5/32	TAP1-18.65	TAK1-18.65	TAN1-18.65	
1-A		0.7362	18.70	5/32	TAP1-18.70	TAK1-18.70	TAN1-18.70	
1-A		0.7402	18.80	5/32	TAP1-18.80	TAK1-18.80	TAN1-18.80	
1-A		0.7441	18.90	5/32	TAP1-18.90	TAK1-18.90	TAN1-18.90	
1-A		0.7480	19.00	5/32	TAP1-19.00	TAK1-19.00	TAN1-19.00	

COMING FEBRUARY

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.

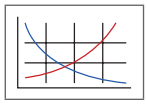

A Series Insert + A Series Holder


C Series Insert + A Series Holder

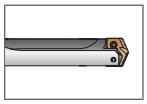

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61



A25: 30 - 33

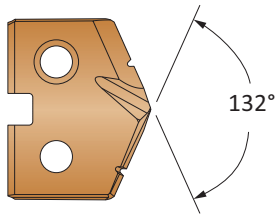


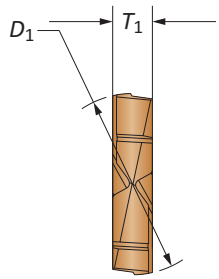
Sizes not shown are available upon request. When ordering, please follow the example below:	
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

T-A Pro Carbide Drill Inserts

1 Series | Diameter Range: 0.695" - 0.959" (17.65mm - 24.37mm)







Insert								
Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	Part No. P	Part No. K	Part No. N	Part No. M
1-B	3/4	0.7500	19.05	5/32	TAP1-19.05	TAK1-19.05	TAN1-19.05	COMING FEBRUARY
1-B		0.7520	19.10	5/32	TAP1-19.10	TAK1-19.10	TAN1-19.10	
1-B		0.7559	19.20	5/32	TAP1-19.20	TAK1-19.20	TAN1-19.20	
1-B		0.7579	19.25	5/32	TAP1-19.25	TAK1-19.25	TAN1-19.25	
1-B		0.7598	19.30	5/32	TAP1-19.30	TAK1-19.30	TAN1-19.30	
1-B		0.7638	19.40	5/32	TAP1-19.40	TAK1-19.40	TAN1-19.40	
1-B	49/64	0.7657	19.45	5/32	TAP1-19.45	TAK1-19.45	TAN1-19.45	
1-B		0.7677	19.50	5/32	TAP1-19.50	TAK1-19.50	TAN1-19.50	
1-B		0.7717	19.60	5/32	TAP1-19.60	TAK1-19.60	TAN1-19.60	
1-B		0.7756	19.70	5/32	TAP1-19.70	TAK1-19.70	TAN1-19.70	
1-B		0.7795	19.80	5/32	TAP1-19.80	TAK1-19.80	TAN1-19.80	
1-B	25/32	0.7811	19.84	5/32	TAP1-19.84	TAK1-19.84	TAN1-19.84	
1-B		0.7835	19.90	5/32	TAP1-19.90	TAK1-19.90	TAN1-19.90	
1-B		0.7874	20.00	5/32	TAP1-20.00	TAK1-20.00	TAN1-20.00	
1-B		0.7913	20.10	5/32	TAP1-20.10	TAK1-20.10	TAN1-20.10	
1-B		0.7953	20.20	5/32	TAP1-20.20	TAK1-20.20	TAN1-20.20	
1-B	51/64	0.7969	20.24	5/32	TAP1-20.24	TAK1-20.24	TAN1-20.24	
1-B		0.7992	20.30	5/32	TAP1-20.30	TAK1-20.30	TAN1-20.30	
1-B		0.8031	20.40	5/32	TAP1-20.40	TAK1-20.40	TAN1-20.40	
1-B		0.8071	20.50	5/32	TAP1-20.50	TAK1-20.50	TAN1-20.50	

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.

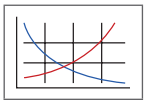

A Series Insert + A Series Holder


C Series Insert + A Series Holder

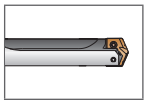

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61



A25: 30 - 33

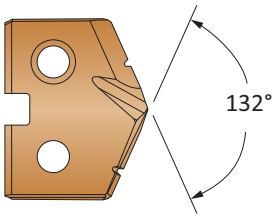


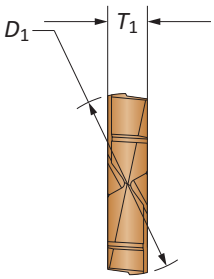
Sizes not shown are available upon request. When ordering, please follow the example below:	
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

T-A Pro Carbide Drill Inserts

1 Series | Diameter Range: 0.695" - 0.959" (17.65mm - 24.37mm)







Insert								
Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	Part No. P	Part No. K	Part No. N	Part No. M
1-C		0.8110	20.60	5/32	TAP1-20.60	TAK1-20.60	TAN1-20.60	COMING FEBRUARY
1-C	13/16	0.8126	20.64	5/32	TAP1-20.64	TAK1-20.64	TAN1-20.64	
1-C		0.8150	20.70	5/32	TAP1-20.70	TAK1-20.70	TAN1-20.70	
1-C		0.8189	20.80	5/32	TAP1-20.80	TAK1-20.80	TAN1-20.80	
1-C		0.8228	20.90	5/32	TAP1-20.90	TAK1-20.90	TAN1-20.90	
1-C		0.8268	21.00	5/32	TAP1-21.00	TAK1-21.00	TAN1-21.00	
1-C		0.8307	21.10	5/32	TAP1-21.10	TAK1-21.10	TAN1-21.10	
1-C		0.8346	21.20	5/32	TAP1-21.20	TAK1-21.20	TAN1-21.20	
1-C		0.8386	21.30	5/32	TAP1-21.30	TAK1-21.30	TAN1-21.30	
1-C		0.8425	21.40	5/32	TAP1-21.40	TAK1-21.40	TAN1-21.40	
1-C	27/32	0.8437	21.43	5/32	TAP1-21.43	TAK1-21.43	TAN1-21.43	
1-C		0.8465	21.50	5/32	TAP1-21.50	TAK1-21.50	TAN1-21.50	
1-C		0.8504	21.60	5/32	TAP1-21.60	TAK1-21.60	TAN1-21.60	
1-C		0.8543	21.70	5/32	TAP1-21.70	TAK1-21.70	TAN1-21.70	
1-C		0.8583	21.80	5/32	TAP1-21.80	TAK1-21.80	TAN1-21.80	
1-C	55/64	0.8594	21.83	5/32	TAP1-21.83	TAK1-21.83	TAN1-21.83	
1-C		0.8622	21.90	5/32	TAP1-21.90	TAK1-21.90	TAN1-21.90	
1-C		0.8661	22.00	5/32	TAP1-22.00	TAK1-22.00	TAN1-22.00	
1-C		0.8701	22.10	5/32	TAP1-22.10	TAK1-22.10	TAN1-22.10	
1-C		0.8740	22.20	5/32	TAP1-22.20	TAK1-22.20	TAN1-22.20	
1-C	7/8	0.8752	22.23	5/32	TAP1-22.23	TAK1-22.23	TAN1-22.23	
1-C		0.8780	22.30	5/32	TAP1-22.30	TAK1-22.30	TAN1-22.30	
1-C		0.8819	22.40	5/32	TAP1-22.40	TAK1-22.40	TAN1-22.40	
1-C		0.8858	22.50	5/32	TAP1-22.50	TAK1-22.50	TAN1-22.50	
1-C	57/34	0.8906	22.62	5/32	TAP1-22.62	TAK1-22.62	TAN1-22.62	
1-C		0.8937	22.70	5/32	TAP1-22.70	TAK1-22.70	TAN1-22.70	
1-C		0.8976	22.80	5/32	TAP1-22.80	TAK1-22.80	TAN1-22.80	

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.

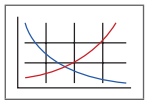

A Series Insert + A Series Holder


C Series Insert + A Series Holder

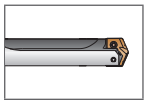

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61



A25: 30 - 33

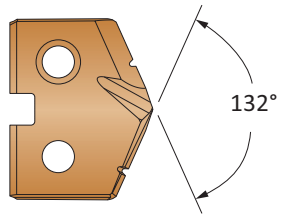


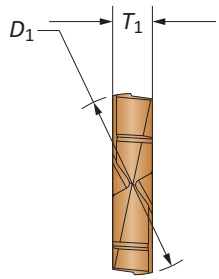
Sizes not shown are available upon request. When ordering, please follow the example below:	
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

T-A Pro Carbide Drill Inserts

1 Series | Diameter Range: 0.695" - 0.959" (17.65mm - 24.37mm)







Insert					Part No.	Part No.	Part No.	Part No.
Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	P	K	N	M
1-D		0.9016	22.90	5/32	**TAP1-22.90**	**TAK1-22.90**	**TAN1-22.90**	COMING FEBRUARY
1-D		0.9055	23.00	5/32	**TAP1-23.00**	**TAK1-23.00**	**TAN1-23.00**	
1-D	29/32	0.9063	23.02	5/32	**TAP1-23.02**	**TAK1-23.02**	**TAN1-23.02**	
1-D		0.9094	23.10	5/32	**TAP1-23.10**	**TAK1-23.10**	**TAN1-23.10**	
1-D		0.9134	23.20	5/32	**TAP1-23.20**	**TAK1-23.20**	**TAN1-23.20**	
1-D		0.9173	23.30	5/32	**TAP1-23.30**	**TAK1-23.30**	**TAN1-23.30**	
1-D	59/64	0.9220	23.42	5/32	**TAP1-23.42**	**TAK1-23.42**	**TAN1-23.42**	
1-D		0.9252	23.50	5/32	**TAP1-23.50**	**TAK1-23.50**	**TAN1-23.50**	
1-D		0.9291	23.60	5/32	**TAP1-23.60**	**TAK1-23.60**	**TAN1-23.60**	
1-D		0.9331	23.70	5/32	**TAP1-23.70**	**TAK1-23.70**	**TAN1-23.70**	
1-D	15/16	0.9374	23.81	5/32	**TAP1-23.81**	**TAK1-23.81**	**TAN1-23.81**	
1-D		0.9409	23.90	5/32	**TAP1-23.90**	**TAK1-23.90**	**TAN1-23.90**	
1-D		0.9449	24.00	5/32	**TAP1-24.00**	**TAK1-24.00**	**TAN1-24.00**	
1-D		0.9488	24.10	5/32	**TAP1-24.10**	**TAK1-24.10**	**TAN1-24.10**	
1-D		0.9528	24.20	5/32	**TAP1-24.20**	**TAK1-24.20**	**TAN1-24.20**	
1-D		0.9567	24.30	5/32	**TAP1-24.30**	**TAK1-24.30**	**TAN1-24.30**	

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.

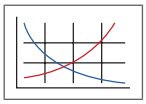

A Series Insert + A Series Holder


C Series Insert + A Series Holder

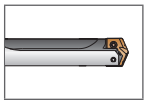

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61


Key on A25: 1

A25: 30 - 33



Sizes not shown are available upon request. When ordering, please follow the example below:	
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

COMING JANUARY

T-A Pro HSS Drill [illegible]

1 Series [illegible] 0.959" (17.65mm - 24.37mm)





Series	Fractional Equivalent	D_1 Inch	D_1 mm	T_1	Insert Part No.
1-A		0.6969	17.70	5/32	TAX1-17.70
1-A		0.7008	17.80	5/32	TAX1-17.80
1-A	45/64	0.7031	17.86	5/32	TAX1-17.86
1-A		0.7047	17.90	5/32	TAX1-17.90
1-A		0.7087	18.00	5/32	TAX1-18.00
1-A		0.7126	18.10	5/32	TAX1-18.10
1-A		0.7165	18.20	5/32	TAX1-18.20
1-A	23/32	0.7189	18.26	5/32	TAX1-18.26
1-A		0.7205	18.30	5/32	TAX1-18.30
1-A		0.7244	18.40	5/32	TAX1-18.40
1-A		0.7283	18.50	5/32	TAX1-18.50
1-A		0.7323	18.60	5/32	TAX1-18.60
1-A	47/64	0.7343	18.65	5/32	TAX1-18.65
1-A		0.7362	18.70	5/32	TAX1-18.70
1-A		0.7402	18.80	5/32	TAX1-18.80
1-A		0.7441	18.90	5/32	TAX1-18.90
1-A		0.7480	19.00	5/32	TAX1-19.00

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.


A Series Insert + A Series Holder


C Series Insert + A Series Holder

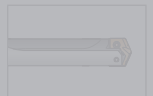

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61



A25: 30 - 33



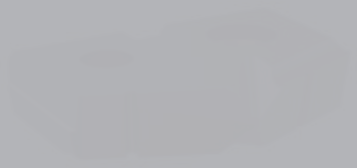
Sizes not shown are available upon request.
When ordering, please follow the example below:

Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

COMING JANUARY

T-A Pro HSS Drill Inserts

1 Series | Diameter Range: 0.695" - 0.959" (17.65mm - 24.37mm)





Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	Insert Part No.
1-8	3/4	0.7500	19.05	5/32	TAX1-19.05
1-8		0.7520	19.10	5/32	TAX1-19.10
1-8		0.7559	19.20	5/32	TAX1-19.20
1-8		0.7579	19.25	5/32	TAX1-19.25
1-8		0.7598	19.30	5/32	TAX1-19.30
1-8		0.7638	19.40	5/32	TAX1-19.40
1-8	49/64	0.7657	19.45	5/32	TAX1-19.45
1-8		0.7677	19.50	5/32	TAX1-19.50
1-8		0.7717	19.60	5/32	TAX1-19.60
1-8		0.7756	19.70	5/32	TAX1-19.70
1-8		0.7795	19.80	5/32	TAX1-19.80
1-8	25/32	0.7811	19.84	5/32	TAX1-19.84
1-8		0.7835	19.90	5/32	TAX1-19.90
1-8		0.7874	20.00	5/32	TAX1-20.00
1-8		0.7913	20.10	5/32	TAX1-20.10
1-8		0.7953	20.20	5/32	TAX1-20.20
1-8	51/64	0.7969	20.24	5/32	TAX1-20.24
1-8		0.7992	20.30	5/32	TAX1-20.30
1-8		0.8031	20.40	5/32	TAX1-20.40
1-8		0.8071	20.50	5/32	TAX1-20.50

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.



A Series Insert + A Series Holder



C Series Insert + A Series Holder

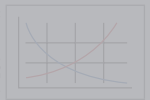


C Series Insert + C Series Holder

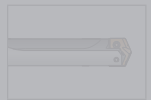


A Series Insert + C Series Holder

A25: 58 - 61



A25: 30 - 33



Key on A25:1

Sizes not shown are available upon request. When ordering, please follow the example below:	
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

COMING JANUARY

T-A Pro HSS Drill …

1 Series … 0.959" (17.65mm - 24.37mm)





Series	Fractional Equivalent	Insert D_1 Inch	Insert D_1 mm	Insert T_1	Insert Part No.
1-C		0.8110	20.60	5/32	TAX1-20.60
1-C	13/16	0.8126	20.64	5/32	TAX1-20.64
1-C		0.8150	20.70	5/32	TAX1-20.70
1-C		0.8189	20.80	5/32	TAX1-20.80
1-C		0.8228	20.90	5/32	TAX1-20.90
1-C		0.8268	21.00	5/32	TAX1-21.00
1-C		0.8307	21.10	5/32	TAX1-21.10
1-C		0.8346	21.20	5/32	TAX1-21.20
1-C		0.8386	21.30	5/32	TAX1-21.30
1-C		0.8425	21.40	5/32	TAX1-21.40
1-C	27/32	0.8437	21.43	5/32	TAX1-21.43
1-C		0.8465	21.50	5/32	TAX1-21.50
1-C		0.8504	21.60	5/32	TAX1-21.60
1-C		0.8543	21.70	5/32	TAX1-21.70
1-C		0.8583	21.80	5/32	TAX1-21.80
1-C	55/64	0.8594	21.83	5/32	TAX1-21.83
1-C		0.8622	21.90	5/32	TAX1-21.90
1-C		0.8661	22.00	5/32	TAX1-22.00
1-C		0.8701	22.10	5/32	TAX1-22.10
1-C		0.8740	22.20	5/32	TAX1-22.20
1-C	7/8	0.8752	22.23	5/32	TAX1-22.23
1-C		0.8780	22.30	5/32	TAX1-22.30
1-C		0.8819	22.40	5/32	TAX1-22.40
1-C		0.8858	22.50	5/32	TAX1-22.50
1-C	57/64	0.8906	22.62	5/32	TAX1-22.62
1-C		0.8937	22.70	5/32	TAX1-22.70
1-C		0.8976	22.80	5/32	TAX1-22.80

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.

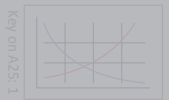

A Series Insert + A Series Holder


C Series Insert + A Series Holder

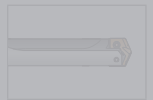

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61



A25: 30 - 33



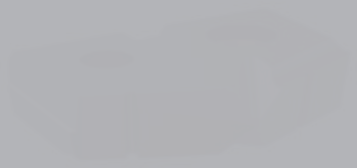
Sizes not shown are available upon request.
When ordering, please follow the example below:

Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

COMING JANUARY

T-A Pro HSS Drill Inserts

1 Series | Diameter Range: 0.695" - 0.959" (17.65mm - 24.37mm)





Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	Insert Part No.
1-D		0.9016	22.90	5/32	TAX1-2290
1-D		0.9055	23.00	5/32	TAX1-2300
1-D	29/32	0.9063	23.02	5/32	TAX1-2302
1-D		0.9094	23.10	5/32	TAX1-2310
1-D		0.9134	23.20	5/32	TAX1-2320
1-D		0.9173	23.30	5/32	TAX1-2330
1-D	59/64	0.9220	23.42	5/32	TAX1-2342
1-D		0.9252	23.50	5/32	TAX1-2350
1-D		0.9291	23.60	5/32	TAX1-2360
1-D		0.9331	23.70	5/32	TAX1-2370
1-D	15/16	0.9374	23.81	5/32	TAX1-2381
1-D		0.9409	23.90	5/32	TAX1-2390
1-D		0.9449	24.00	5/32	TAX1-2400
1-D		0.9488	24.10	5/32	TAX1-2410
1-D		0.9528	24.20	5/32	TAX1-2420
1-D		0.9567	24.30	5/32	TAX1-2430

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.



A Series Insert + A Series Holder



C Series Insert + A Series Holder

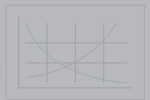


C Series Insert + C Series Holder

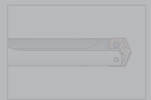


A Series Insert + C Series Holder

A25: 58 - 61



A25: 30 - 33



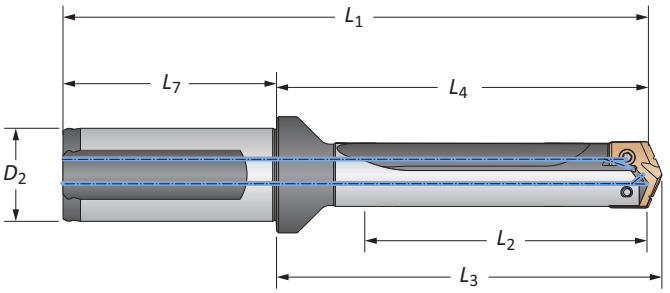
Key on A25:1

Sizes not shown are available upon request. When ordering, please follow the example below:	
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

T-A Pro Drill Holders

1 Series Imperial | Diameter Range: 0.695" - 0.959"





			Body				Shank			
	Length	Sub Series	L_2	L_4	L_3	L_1	L_7	D_2	Flat	Part No
	STUB	A	0.825	2.224	2.364	4.504	2.280	1.00	Yes	**HTA1A01-100F**
	STUB	A	0.825	2.224	2.364	4.504	2.280	1.00	No	**HTA1A01-100C**
	STUB	B	0.825	2.224	2.364	4.504	2.280	1.00	Yes	**HTA1B01-100F**
	STUB	B	0.825	2.224	2.364	4.504	2.280	1.00	No	**HTA1B01-100C**
	STUB	C	0.825	2.224	2.364	4.504	2.280	1.00	Yes	**HTA1C01-100F**
	STUB	C	0.825	2.224	2.364	4.504	2.280	1.00	No	**HTA1C01-100C**
	STUB	D	0.825	2.224	2.364	4.504	2.280	1.00	Yes	**HTA1D01-100F**
	STUB	D	0.825	2.224	2.364	4.504	2.280	1.00	No	**HTA1D01-100C**
	3xD	A	2.475	3.973	4.113	6.253	2.280	1.00	Yes	**HTA1A03-100F**
	3xD	A	2.475	3.973	4.113	6.253	2.280	1.00	No	**HTA1A03-100C**
	3xD	B	2.475	3.973	4.113	6.253	2.280	1.00	Yes	**HTA1B03-100F**
	3xD	B	2.475	3.973	4.113	6.253	2.280	1.00	No	**HTA1B03-100C**
	3xD	C	2.475	3.973	4.113	6.253	2.280	1.00	Yes	**HTA1C03-100F**
	3xD	C	2.475	3.973	4.113	6.253	2.280	1.00	No	**HTA1C03-100C**
	3xD	D	2.475	3.973	4.113	6.253	2.280	1.00	Yes	**HTA1D03-100F**
ⓘ	3xD	D	2.475	3.973	4.113	6.253	2.280	1.00	No	**HTA1D03-100C**
	5xD	A	4.125	5.623	5.763	7.903	2.280	1.00	Yes	**HTA1A05-100F**
	5xD	A	4.125	5.623	5.763	7.903	2.280	1.00	No	**HTA1A05-100C**
	5xD	B	4.125	5.623	5.763	7.903	2.280	1.00	Yes	**HTA1B05-100F**
	5xD	B	4.125	5.623	5.763	7.903	2.280	1.00	No	**HTA1B05-100C**
	5xD	C	4.125	5.623	5.763	7.903	2.280	1.00	Yes	**HTA1C05-100F**
	5xD	C	4.125	5.623	5.763	7.903	2.280	1.00	No	**HTA1C05-100C**
	5xD	D	4.125	5.623	5.763	7.903	2.280	1.00	Yes	**HTA1D05-100F**
	5xD	D	4.125	5.623	5.763	7.903	2.280	1.00	No	**HTA1D05-100C**
	7xD	A	5.775	7.273	7.413	9.553	2.280	1.00	Yes	**HTA1A07-100F**
	7xD	A	5.775	7.273	7.413	9.553	2.280	1.00	No	**HTA1A07-100C**
	7xD	B	5.775	7.273	7.413	9.553	2.280	1.00	Yes	**HTA1B07-100F**
	7xD	B	5.775	7.273	7.413	9.553	2.280	1.00	No	**HTA1B07-100C**
	7xD	C	5.775	7.273	7.413	9.553	2.280	1.00	Yes	**HTA1C07-100F**
	7xD	C	5.775	7.273	7.413	9.553	2.280	1.00	No	**HTA1C07-100C**
	7xD	D	5.775	7.273	7.413	9.553	2.280	1.00	Yes	**HTA1D07-100F**
	7xD	D	5.775	7.273	7.413	9.553	2.280	1.00	No	**HTA1D07-100C**

Connection Accessories

	Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Admissible Tightening Torque*
A/B	7375-IP9-1	7375N-IP9-1	8IP-9	8IP-9TL	8IP-9B	27.0 in-lbs (305 N-cm)
C/D	739-IP9-1	739N-IP9-1	8IP-9	8IP-9TL	8IP-9B	27.0 in-lbs (305 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

⚠ WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
ext: **7611** | *email:* **appeng@alliedmachine.com**

A25: 58 - 61 A25: 22 - 25 A25: 26 - 29

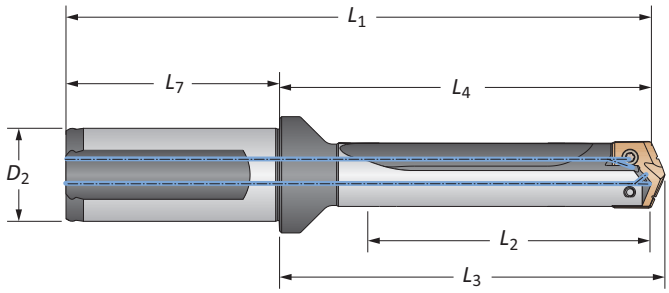
Key on A25: 1

ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Drill Holders

1 Series Imperial | Diameter Range: 0.695" - 0.959"





	Length	Sub Series	Body L_2	Body L_4	Body L_3	Body L_1	Shank L_7	Shank D_2	Shank Flat	Part No
	10xD	A	8.250	9.748	9.888	12.028	2.280	1.00	Yes	HTA1A10-100F
	10xD	A	8.250	9.748	9.888	12.028	2.280	1.00	No	HTA1A10-100C
	10xD	B	8.250	9.748	9.888	12.028	2.280	1.00	Yes	HTA1B10-100F
	10xD	B	8.250	9.748	9.888	12.028	2.280	1.00	No	HTA1B10-100C
	10xD	C	8.250	9.748	9.888	12.028	2.280	1.00	Yes	HTA1C10-100F
	10xD	C	8.250	9.748	9.888	12.028	2.280	1.00	No	HTA1C10-100C
	10xD	D	8.250	9.748	9.888	12.028	2.280	1.00	Yes	HTA1D10-100F
	10xD	D	8.250	9.748	9.888	12.028	2.280	1.00	No	HTA1D10-100C
	12xD	A	9.900	11.398	11.538	13.678	2.280	1.00	Yes	HTA1A12-100F
	12xD	A	9.900	11.398	11.538	13.678	2.280	1.00	No	HTA1A12-100C
	12xD	B	9.900	11.398	11.538	13.678	2.280	1.00	Yes	HTA1B12-100F
ⓘ	12xD	B	9.900	11.398	11.538	13.678	2.280	1.00	No	HTA1B12-100C
	12xD	C	9.900	11.398	11.538	13.678	2.280	1.00	Yes	HTA1C12-100F
	12xD	C	9.900	11.398	11.538	13.678	2.280	1.00	No	HTA1C12-100C
	12xD	D	9.900	11.398	11.538	13.678	2.280	1.00	Yes	HTA1D12-100F
	12xD	D	9.900	11.398	11.538	13.678	2.280	1.00	No	HTA1D12-100C
	15xD	A	12.375	13.873	14.013	16.153	2.280	1.00	Yes	HTA1A15-100F
	15xD	A	12.375	13.873	14.013	16.153	2.280	1.00	No	HTA1A15-100C
	15xD	B	12.375	13.873	14.013	16.153	2.280	1.00	Yes	HTA1B15-100F
	15xD	B	12.375	13.873	14.013	16.153	2.280	1.00	No	HTA1B15-100C
	15xD	C	12.375	13.873	14.013	16.153	2.280	1.00	Yes	HTA1C15-100F
	15xD	C	12.375	13.873	14.013	16.153	2.280	1.00	No	HTA1C15-100C
	15xD	D	12.375	13.873	14.013	16.153	2.280	1.00	Yes	HTA1D15-100F
	15xD	D	12.375	13.873	14.013	16.153	2.280	1.00	No	HTA1D15-100C

Connection Accessories

	Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Admissible Tightening Torque*
A/B	7375-IP9-1	7375N-IP9-1	8IP-9	8IP-9TL	8IP-9B	27.0 in-lbs (305 N-cm)
C/D	739-IP9-1	739N-IP9-1	8IP-9	8IP-9TL	8IP-9B	27.0 in-lbs (305 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

⚠ WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
ext: **7611** | *email:* **appeng@alliedmachine.com**

A25: 58 - 61 | A25: 22 - 25 | A25: 26 - 29

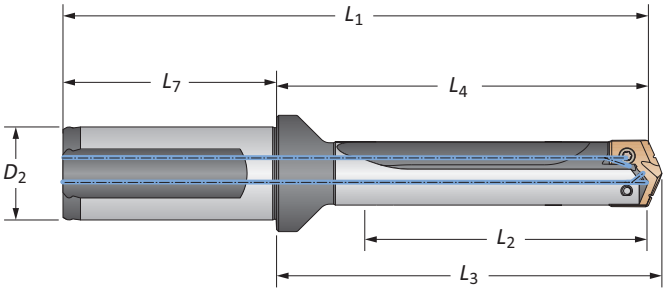
Key on A25: 1

ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Drill Holders

1 Series Metric | Diameter Range: 17.65mm - 24.37mm





	Length	Sub Series	Body L_2	Body L_4	Body L_3	Body L_1	Shank L_7	Shank D_2	Shank Flat	Part No
	STUB	A	21.0	56.5	60.0	114.4	57.9	25	Yes	**HTA1A01-25FM**
	STUB	A	21.0	56.5	60.0	114.4	57.9	25	No	**HTA1A01-25CM**
	STUB	B	21.0	56.5	60.0	114.4	57.9	25	Yes	**HTA1B01-25FM**
	STUB	B	21.0	56.5	60.0	114.4	57.9	25	No	**HTA1B01-25CM**
	STUB	C	21.0	56.5	60.0	114.4	57.9	25	Yes	**HTA1C01-25FM**
	STUB	C	21.0	56.5	60.0	114.4	57.9	25	No	**HTA1C01-25CM**
	STUB	D	21.0	56.5	60.0	114.4	57.9	25	Yes	**HTA1D01-25FM**
	STUB	D	21.0	56.5	60.0	114.4	57.9	25	No	**HTA1D01-25CM**
	3xD	A	62.9	100.9	104.5	158.8	57.9	25	Yes	**HTA1A03-25FM**
	3xD	A	62.9	100.9	104.5	158.8	57.9	25	No	**HTA1A03-25CM**
	3xD	B	62.9	100.9	104.5	158.8	57.9	25	Yes	**HTA1B03-25FM**
	3xD	B	62.9	100.9	104.5	158.8	57.9	25	No	**HTA1B03-25CM**
	3xD	C	62.9	100.9	104.5	158.8	57.9	25	Yes	**HTA1C03-25FM**
	3xD	C	62.9	100.9	104.5	158.8	57.9	25	No	**HTA1C03-25CM**
	3xD	D	62.9	100.9	104.5	158.8	57.9	25	Yes	**HTA1D03-25FM**
ⓜ	3xD	D	62.9	100.9	104.5	158.8	57.9	25	No	**HTA1D03-25CM**
	5xD	A	104.8	142.8	146.4	200.7	57.9	25	Yes	**HTA1A05-25FM**
	5xD	A	104.8	142.8	146.4	200.7	57.9	25	No	**HTA1A05-25CM**
	5xD	B	104.8	142.8	146.4	200.7	57.9	25	Yes	**HTA1B05-25FM**
	5xD	B	104.8	142.8	146.4	200.7	57.9	25	No	**HTA1B05-25CM**
	5xD	C	104.8	142.8	146.4	200.7	57.9	25	Yes	**HTA1C05-25FM**
	5xD	C	104.8	142.8	146.4	200.7	57.9	25	No	**HTA1C05-25CM**
	5xD	D	104.8	142.8	146.4	200.7	57.9	25	Yes	**HTA1D05-25FM**
	5xD	D	104.8	142.8	146.4	200.7	57.9	25	No	**HTA1D05-25CM**
	7xD	A	146.7	184.7	188.3	242.7	57.9	25	Yes	**HTA1A07-25FM**
	7xD	A	146.7	184.7	188.3	242.7	57.9	25	No	**HTA1A07-25CM**
	7xD	B	146.7	184.7	188.3	242.7	57.9	25	Yes	**HTA1B07-25FM**
	7xD	B	146.7	184.7	188.3	242.7	57.9	25	No	**HTA1B07-25CM**
	7xD	C	146.7	184.7	188.3	242.7	57.9	25	Yes	**HTA1C07-25FM**
	7xD	C	146.7	184.7	188.3	242.7	57.9	25	No	**HTA1C07-25CM**
	7xD	D	146.7	184.7	188.3	242.7	57.9	25	Yes	**HTA1D07-25FM**
	7xD	D	146.7	184.7	188.3	242.7	57.9	25	No	**HTA1D07-25CM**

Connection Accessories

	Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Admissible Tightening Torque*
A/B	7375-IP9-1	7375N-IP9-1	8IP-9	8IP-9TL	8IP-9B	27.0 in-lbs (305 N-cm)
C/D	739-IP9-1	739N-IP9-1	8IP-9	8IP-9TL	8IP-9B	27.0 in-lbs (305 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

⚠ WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
ext: **7611** | *email:* **appeng@alliedmachine.com**

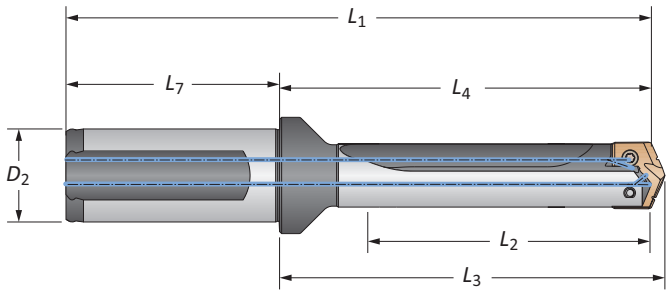
A25: 58 - 61 (Key on A25: 1)
A25: 22 - 25
A25: 26 - 29

ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Drill Holders

1 Series Metric | Diameter Range: 17.65mm - 24.37mm





			Body				Shank			
	Length	Sub Series	L_2	L_4	L_3	L_1	L_7	D_2	Flat	Part No
	10xD	A	209.6	247.6	251.2	305.5	57.9	25	Yes	HTA1A10-25FM
	10xD	A	209.6	247.6	251.2	305.5	57.9	25	No	HTA1A10-25CM
	10xD	B	209.6	247.6	251.2	305.5	57.9	25	Yes	HTA1B10-25FM
	10xD	B	209.6	247.6	251.2	305.5	57.9	25	No	HTA1B10-25CM
	10xD	C	209.6	247.6	251.2	305.5	57.9	25	Yes	HTA1C10-25FM
	10xD	C	209.6	247.6	251.2	305.5	57.9	25	No	HTA1C10-25CM
	10xD	D	209.6	247.6	251.2	305.5	57.9	25	Yes	HTA1D10-25FM
	10xD	D	209.6	247.6	251.2	305.5	57.9	25	No	HTA1D10-25CM
	12xD	A	251.5	289.5	293.1	347.4	57.9	25	Yes	HTA1A12-25FM
	12xD	A	251.5	289.5	293.1	347.4	57.9	25	No	HTA1A12-25CM
	12xD	B	251.5	289.5	293.1	347.4	57.9	25	Yes	HTA1B12-25FM
ⓜ	12xD	B	251.5	289.5	293.1	347.4	57.9	25	No	HTA1B12-25CM
	12xD	C	251.5	289.5	293.1	347.4	57.9	25	Yes	HTA1C12-25FM
	12xD	C	251.5	289.5	293.1	347.4	57.9	25	No	HTA1C12-25CM
	12xD	D	251.5	289.5	293.1	347.4	57.9	25	Yes	HTA1D12-25FM
	12xD	D	251.5	289.5	293.1	347.4	57.9	25	No	HTA1D12-25CM
	15xD	A	314.3	352.4	355.9	410.3	57.9	25	Yes	HTA1A15-25FM
	15xD	A	314.3	352.4	355.9	410.3	57.9	25	No	HTA1A15-25CM
	15xD	B	314.3	352.4	355.9	410.3	57.9	25	Yes	HTA1B15-25FM
	15xD	B	314.3	352.4	355.9	410.3	57.9	25	No	HTA1B15-25CM
	15xD	C	314.3	352.4	355.9	410.3	57.9	25	Yes	HTA1C15-25FM
	15xD	C	314.3	352.4	355.9	410.3	57.9	25	No	HTA1C15-25CM
	15xD	D	314.3	352.4	355.9	410.3	57.9	25	Yes	HTA1D15-25FM
	15xD	D	314.3	352.4	355.9	410.3	57.9	25	No	HTA1D15-25CM

Connection Accessories

	Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Admissible Tightening Torque*
A/B	7375-IP9-1	7375N-IP9-1	8IP-9	8IP-9TL	8IP-9B	27.0 in-lbs (305 N-cm)
C/D	739-IP9-1	739N-IP9-1	8IP-9	8IP-9TL	8IP-9B	27.0 in-lbs (305 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
ext: **7611** | *email:* **appeng@alliedmachine.com**

A25: 58 - 61 A25: 22 - 25 A25: 26 - 29

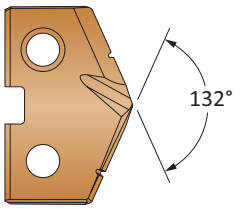
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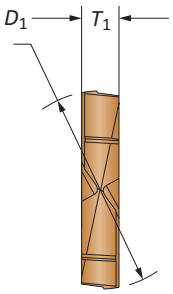
ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Carbide Drill Inserts

2 Series | Diameter Range: 0.960" - 1.379" (24.38mm - 35.04mm)







Insert								Part No.
Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	Part No. P	Part No. K	Part No. N	Part No. M
2-A		0.9606	24.40	3/16	TAP2-24.40	TAK2-24.40	TAN2-24.40	COMING FEBRUARY
2-A		0.9646	24.50	3/16	TAP2-24.50	TAK2-24.50	TAN2-24.50	
2-A	31/32	0.9689	24.61	3/16	TAP2-24.61	TAK2-24.61	TAN2-24.61	
2-A		0.9724	24.70	3/16	TAP2-24.70	TAK2-24.70	TAN2-24.70	
2-A		0.9764	24.80	3/16	TAP2-24.80	TAK2-24.80	TAN2-24.80	
2-A		0.9803	24.90	3/16	TAP2-24.90	TAK2-24.90	TAN2-24.90	
2-A	63/64	0.9843	25.00	3/16	TAP2-25.00	TAK2-25.00	TAN2-25.00	
2-A		0.9882	25.10	3/16	TAP2-25.10	TAK2-25.10	TAN2-25.10	
2-A		0.9921	25.20	3/16	TAP2-25.20	TAK2-25.20	TAN2-25.20	
2-A		0.9961	25.30	3/16	TAP2-25.30	TAK2-25.30	TAN2-25.30	

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.

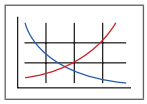

A Series Insert + A Series Holder


C Series Insert + A Series Holder

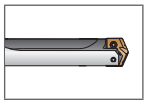

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61



A25: 42 - 45



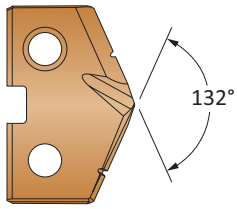
Sizes not shown are available upon request.
When ordering, please follow the example below:

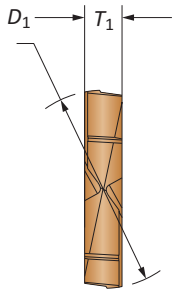
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

T-A Pro Carbide Drill Inserts

2 Series | Diameter Range: 0.960" - 1.379" (24.38mm - 35.04mm)







Insert								
Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	Part No. P	Part No. K	Part No. N	Part No. M
2-B	1	1.0000	25.40	3/16	TAP2-25.40	TAK2-25.40	TAN2-25.40	
2-B		1.0039	25.50	3/16	TAP2-25.50	TAK2-25.50	TAN2-25.50	
2-B		1.0079	25.60	3/16	TAP2-25.60	TAK2-25.60	TAN2-25.60	
2-B		1.0118	25.70	3/16	TAP2-25.70	TAK2-25.70	TAN2-25.70	
2-B		1.0150	25.78	3/16	TAP2-25.78	TAK2-25.78	TAN2-25.78	
2-B		1.0197	25.90	3/16	TAP2-25.90	TAK2-25.90	TAN2-25.90	
2-B		1.0236	26.00	3/16	TAP2-26.00	TAK2-26.00	TAN2-26.00	
2-B		1.0276	26.10	3/16	TAP2-26.10	TAK2-26.10	TAN2-26.10	
2-B	1-1/32	1.0315	26.20	3/16	TAP2-26.20	TAK2-26.20	TAN2-26.20	
2-B		1.0354	26.30	3/16	TAP2-26.30	TAK2-26.30	TAN2-26.30	
2-B		1.0394	26.40	3/16	TAP2-26.40	TAK2-26.40	TAN2-26.40	
2-B		1.0433	26.50	3/16	TAP2-26.50	TAK2-26.50	TAN2-26.50	
2-B		1.0461	26.57	3/16	TAP2-26.57	TAK2-26.57	TAN2-26.57	
2-B	1-3/64	1.0469	26.59	3/16	TAP2-26.59	TAK2-26.59	TAN2-26.59	
2-B		1.0472	26.60	3/16	TAP2-26.60	TAK2-26.60	TAN2-26.60	
2-B		1.0512	26.70	3/16	TAP2-26.70	TAK2-26.70	TAN2-26.70	
2-B		1.0551	26.80	3/16	TAP2-26.80	TAK2-26.80	TAN2-26.80	
2-B		1.0591	26.90	3/16	TAP2-26.90	TAK2-26.90	TAN2-26.90	
2-B	1-1/16	1.0626	26.99	3/16	TAP2-26.99	TAK2-26.99	TAN2-26.99	
2-B		1.0630	27.00	3/16	TAP2-27.00	TAK2-27.00	TAN2-27.00	
2-B		1.0669	27.10	3/16	TAP2-27.10	TAK2-27.10	TAN2-27.10	
2-B		1.0709	27.20	3/16	TAP2-27.20	TAK2-27.20	TAN2-27.20	
2-B		1.0748	27.30	3/16	TAP2-27.30	TAK2-27.30	TAN2-27.30	
2-B		1.0787	27.40	3/16	TAP2-27.40	TAK2-27.40	TAN2-27.40	
2-B		1.0827	27.50	3/16	TAP2-27.50	TAK2-27.50	TAN2-27.50	
2-B		1.0866	27.60	3/16	TAP2-27.60	TAK2-27.60	TAN2-27.60	
2-B		1.0906	27.70	3/16	TAP2-27.70	TAK2-27.70	TAN2-27.70	
2-B	1-3/32	1.0937	27.78	3/16	TAP2-27.78	TAK2-27.78	TAN2-27.78	
2-B		1.0984	27.90	3/16	TAP2-27.90	TAK2-27.90	TAN2-27.90	
2-B		1.1024	28.00	3/16	TAP2-28.00	TAK2-28.00	TAN2-28.00	
2-B		1.1063	28.10	3/16	TAP2-28.10	TAK2-28.10	TAN2-28.10	
2-B	1-7/64	1.1091	28.17	3/16	TAP2-28.17	TAK2-28.17	TAN2-28.17	
2-B		1.1102	28.20	3/16	TAP2-28.20	TAK2-28.20	TAN2-28.20	
2-B		1.1142	28.30	3/16	TAP2-28.30	TAK2-28.30	TAN2-28.30	
2-B		1.1181	28.40	3/16	TAP2-28.40	TAK2-28.40	TAN2-28.40	

COMING FEBRUARY

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.



A Series Insert + A Series Holder



C Series Insert + A Series Holder

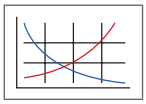


C Series Insert + C Series Holder



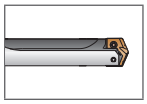
A Series Insert + C Series Holder

A25: 58 - 61



Key on A25: 1

A25: 42 - 45

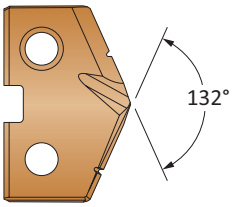


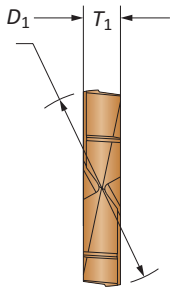
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Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

T-A Pro Carbide Drill Inserts

2 Series | Diameter Range: 0.960" - 1.379" (24.38mm - 35.04mm)







Insert					Part No.	Part No.	Part No.	Part No.
Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	P	K	N	M
2-C		1.1220	28.50	3/16	TAP2-28.50	TAK2-28.50	TAN2-28.50	COMING FEBRUARY
2-C	1-1/8	1.1252	28.58	3/16	TAP2-28.58	TAK2-28.58	TAN2-28.58	
2-C		1.1299	28.70	3/16	TAP2-28.70	TAK2-28.70	TAN2-28.70	
2-C		1.1339	28.80	3/16	TAP2-28.80	TAK2-28.80	TAN2-28.80	
2-C		1.1378	28.90	3/16	TAP2-28.90	TAK2-28.90	TAN2-28.90	
2-C		1.1417	29.00	3/16	TAP2-29.00	TAK2-29.00	TAN2-29.00	
2-C		1.1457	29.10	3/16	TAP2-29.10	TAK2-29.10	TAN2-29.10	
2-C		1.1496	29.20	3/16	TAP2-29.20	TAK2-29.20	TAN2-29.20	
2-C		1.1535	29.30	3/16	TAP2-29.30	TAK2-29.30	TAN2-29.30	
2-C	1-5/32	1.1563	29.37	3/16	TAP2-29.37	TAK2-29.37	TAN2-29.37	
2-C		1.1575	29.40	3/16	TAP2-29.40	TAK2-29.40	TAN2-29.40	
2-C		1.1614	29.50	3/16	TAP2-29.50	TAK2-29.50	TAN2-29.50	
2-C		1.1654	29.60	3/16	TAP2-29.60	TAK2-29.60	TAN2-29.60	
2-C		1.1693	29.70	3/16	TAP2-29.70	TAK2-29.70	TAN2-29.70	
2-C		1.1732	29.80	3/16	TAP2-29.80	TAK2-29.80	TAN2-29.80	
2-C		1.1772	29.90	3/16	TAP2-29.90	TAK2-29.90	TAN2-29.90	
2-C		1.1811	30.00	3/16	TAP2-30.00	TAK2-30.00	TAN2-30.00	
2-C		1.1850	30.10	3/16	TAP2-30.10	TAK2-30.10	TAN2-30.10	
2-C	1-3/16	1.1874	30.16	3/16	TAP2-30.16	TAK2-30.16	TAN2-30.16	
2-C		1.1890	30.20	3/16	TAP2-30.20	TAK2-30.20	TAN2-30.20	
2-C		1.1929	30.30	3/16	TAP2-30.30	TAK2-30.30	TAN2-30.30	
2-C		1.1969	30.40	3/16	TAP2-30.40	TAK2-30.40	TAN2-30.40	
2-C		1.2008	30.50	3/16	TAP2-30.50	TAK2-30.50	TAN2-30.50	
2-C		1.2047	30.60	3/16	TAP2-30.60	TAK2-30.60	TAN2-30.60	
2-C		1.2087	30.70	3/16	TAP2-30.70	TAK2-30.70	TAN2-30.70	
2-C		1.2126	30.80	3/16	TAP2-30.80	TAK2-30.80	TAN2-30.80	
2-C		1.2165	30.90	3/16	TAP2-30.90	TAK2-30.90	TAN2-30.90	
2-C	1-7/32	1.2189	30.96	3/16	TAP2-30.96	TAK2-30.96	TAN2-30.96	
2-C		1.2205	31.00	3/16	TAP2-31.00	TAK2-31.00	TAN2-31.00	
2-C		1.2244	31.10	3/16	TAP2-31.10	TAK2-31.10	TAN2-31.10	
2-C		1.2283	31.20	3/16	TAP2-31.20	TAK2-31.20	TAN2-31.20	
2-C		1.2323	31.30	3/16	TAP2-31.30	TAK2-31.30	TAN2-31.30	
2-C		1.2362	31.40	3/16	TAP2-31.40	TAK2-31.40	TAN2-31.40	
2-C		1.2402	31.50	3/16	TAP2-31.50	TAK2-31.50	TAN2-31.50	
2-C		1.2441	31.60	3/16	TAP2-31.60	TAK2-31.60	TAN2-31.60	

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

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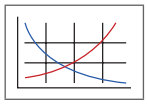

A Series Insert + A Series Holder


C Series Insert + A Series Holder

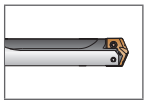

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61



A25: 42 - 45

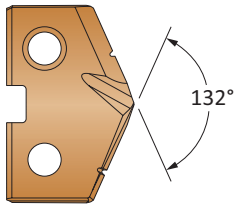


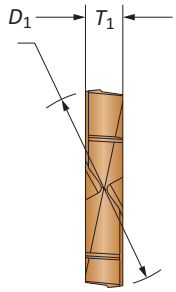
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Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

T-A Pro Carbide Drill Inserts

2 Series | Diameter Range: 0.960" - 1.379" (24.38mm - 35.04mm)







Insert								
Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	Part No. P	Part No. K	Part No. N	Part No. M
2-D		1.2480	31.70	3/16	TAP2-31.70	TAK2-31.70	TAN2-31.70	COMING FEBRUARY
2-D	1-1/4	1.2500	31.75	3/16	TAP2-31.75	TAK2-31.75	TAN2-31.75	
2-D		1.2520	31.80	3/16	TAP2-31.80	TAK2-31.80	TAN2-31.80	
2-D		1.2559	31.90	3/16	TAP2-31.90	TAK2-31.90	TAN2-31.90	
2-D		1.2598	32.00	3/16	TAP2-32.00	TAK2-32.00	TAN2-32.00	
2-D		1.2638	32.10	3/16	TAP2-32.10	TAK2-32.10	TAN2-32.10	
2-D	1-17/64	1.2657	32.15	3/16	TAP2-32.15	TAK2-32.15	TAN2-32.15	
2-D		1.2677	32.20	3/16	TAP2-32.20	TAK2-32.20	TAN2-32.20	
2-D		1.2717	32.30	3/16	TAP2-32.30	TAK2-32.30	TAN2-32.30	
2-D		1.2756	32.40	3/16	TAP2-32.40	TAK2-32.40	TAN2-32.40	
2-D		1.2795	32.50	3/16	TAP2-32.50	TAK2-32.50	TAN2-32.50	
2-D	1-9/32	1.2815	32.55	3/16	TAP2-32.55	TAK2-32.55	TAN2-32.55	
2-D		1.2835	32.60	3/16	TAP2-32.60	TAK2-32.60	TAN2-32.60	
2-D		1.2874	32.70	3/16	TAP2-32.70	TAK2-32.70	TAN2-32.70	
2-D		1.2913	32.80	3/16	TAP2-32.80	TAK2-32.80	TAN2-32.80	
2-D		1.2953	32.90	3/16	TAP2-32.90	TAK2-32.90	TAN2-32.90	
2-D		1.2992	33.00	3/16	TAP2-33.00	TAK2-33.00	TAN2-33.00	
2-D		1.3031	33.10	3/16	TAP2-33.10	TAK2-33.10	TAN2-33.10	
2-D		1.3071	33.20	3/16	TAP2-33.20	TAK2-33.20	TAN2-33.20	
2-D		1.3110	33.30	3/16	TAP2-33.30	TAK2-33.30	TAN2-33.30	
2-D	1-5/16	1.3126	33.34	3/16	TAP2-33.34	TAK2-33.34	TAN2-33.34	
2-D		1.3150	33.40	3/16	TAP2-33.40	TAK2-33.40	TAN2-33.40	
2-D		1.3189	33.50	3/16	TAP2-33.50	TAK2-33.50	TAN2-33.50	
2-D		1.3228	33.60	3/16	TAP2-33.60	TAK2-33.60	TAN2-33.60	
2-D		1.3268	33.70	3/16	TAP2-33.70	TAK2-33.70	TAN2-33.70	
2-D		1.3307	33.80	3/16	TAP2-33.80	TAK2-33.80	TAN2-33.80	
2-D		1.3346	33.90	3/16	TAP2-33.90	TAK2-33.90	TAN2-33.90	
2-D		1.3386	34.00	3/16	TAP2-34.00	TAK2-34.00	TAN2-34.00	
2-D		1.3425	34.10	3/16	TAP2-34.10	TAK2-34.10	TAN2-34.10	
2-D	1-11/32	1.3437	34.13	3/16	TAP2-34.13	TAK2-34.13	TAN2-34.13	
2-D		1.3465	34.20	3/16	TAP2-34.20	TAK2-34.20	TAN2-34.20	
2-D		1.3504	34.30	3/16	TAP2-34.30	TAK2-34.30	TAN2-34.30	
2-D		1.3543	34.40	3/16	TAP2-34.40	TAK2-34.40	TAN2-34.40	
2-D		1.3583	34.50	3/16	TAP2-34.50	TAK2-34.50	TAN2-34.50	
2-D		1.3622	34.60	3/16	TAP2-34.60	TAK2-34.60	TAN2-34.60	
2-D		1.3661	34.70	3/16	TAP2-34.70	TAK2-34.70	TAN2-34.70	
2-D		1.3701	34.80	3/16	TAP2-34.80	TAK2-34.80	TAN2-34.80	
2-D		1.3740	34.90	3/16	TAP2-34.90	TAK2-34.90	TAN2-34.90	
2-D	1-3/8	1.3752	34.93	3/16	TAP2-34.93	TAK2-34.93	TAN2-34.93	
2-D		1.3780	35.00	3/16	TAP2-35.00	TAK2-35.00	TAN2-35.00	

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.



A Series Insert + A Series Holder



C Series Insert + A Series Holder

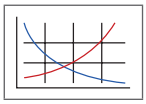


C Series Insert + C Series Holder



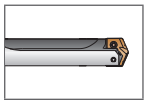
A Series Insert + C Series Holder

A25: 58 - 61



Key on A25: 1

A25: 42 - 45



Sizes not shown are available upon request. When ordering, please follow the example below:	
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

COMING JANUARY

T-A Pro HSS Drill ...

2 Series ... 1.379" (24.38mm - 35.04mm)







Series	Fractional Equivalent	Insert D_1 Inch	Insert D_1 mm	Insert T_1	Part No.
2-A		0.9606	24.40	3/16	TAP2-24.40
2-A		0.9646	24.50	3/16	TAP2-24.50
2-A	31/32	0.9689	24.61	3/16	TAP2-24.61
2-A		0.9724	24.70	3/16	TAP2-24.70
2-A		0.9764	24.80	3/16	TAP2-24.80
2-A		0.9803	24.90	3/16	TAP2-24.90
2-A	63/64	0.9843	25.00	3/16	TAP2-25.00
2-A		0.9882	25.10	3/16	TAP2-25.10
2-A		0.9921	25.20	3/16	TAP2-25.20
2-A		0.9961	25.30	3/16	TAP2-25.30

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.



A Series Insert + A Series Holder



C Series Insert + A Series Holder

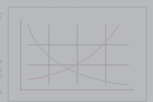


C Series Insert + C Series Holder

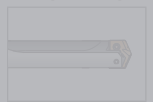


A Series Insert + C Series Holder

A25: 58 - 61



A25: 42 - 45

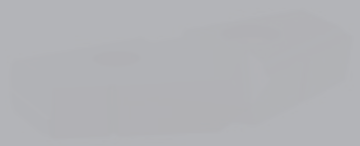


Sizes not shown are available upon request. When ordering, please follow the example below:	
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

COMING JANUARY

T-A Pro HSS Drill Inserts

2 Series | Diameter Range: 0.960" - 1.379" (24.38mm - 35.04mm)





Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	Insert Part No.
2-8	1	1.0000	25.40	3/16	TAX2-2500
2-8		1.0039	25.50	3/16	TAX2-2550
2-8		1.0079	25.60	3/16	TAX2-2560
2-8		1.0118	25.70	3/16	TAX2-2570
2-8		1.0150	25.78	3/16	TAX2-2578
2-8		1.0197	25.90	3/16	TAX2-2590
2-8		1.0236	26.00	3/16	TAX2-2600
2-8		1.0276	26.10	3/16	TAX2-2610
2-8	1-1/32	1.0315	26.20	3/16	TAX2-2620
2-8		1.0354	26.30	3/16	TAX2-2630
2-8		1.0394	26.40	3/16	TAX2-2640
2-8		1.0433	26.50	3/16	TAX2-2650
2-8		1.0461	26.57	3/16	TAX2-2657
2-8	1-3/64	1.0469	26.59	3/16	TAX2-2659
2-8		1.0472	26.60	3/16	TAX2-2660
2-8		1.0512	26.70	3/16	TAX2-2670
2-8		1.0531	26.80	3/16	TAX2-2680
2-8		1.0591	26.90	3/16	TAX2-2690
2-8	1-1/16	1.0626	26.99	3/16	TAX2-2699
2-8		1.0630	27.00	3/16	TAX2-2700
2-8		1.0669	27.10	3/16	TAX2-2710
2-8		1.0709	27.20	3/16	TAX2-2720
2-8		1.0748	27.30	3/16	TAX2-2730
2-8		1.0787	27.40	3/16	TAX2-2740
2-8		1.0827	27.50	3/16	TAX2-2750
2-8		1.0866	27.60	3/16	TAX2-2760
2-8		1.0906	27.70	3/16	TAX2-2770
2-8	1-3/32	1.0937	27.78	3/16	TAX2-2778
2-8		1.0984	27.90	3/16	TAX2-2790
2-8		1.1024	28.00	3/16	TAX2-2800
2-8		1.1063	28.10	3/16	TAX2-2810
2-8	1-7/64	1.1091	28.17	3/16	TAX2-2817
2-8		1.1102	28.20	3/16	TAX2-2820
2-8		1.1142	28.30	3/16	TAX2-2830
2-8		1.1181	28.40	3/16	TAX2-2840

Inserts sold in multiples of 2

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.



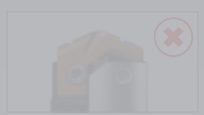
A Series Insert + A Series Holder



C Series Insert + A Series Holder

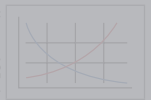


C Series Insert + C Series Holder

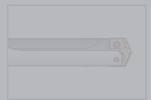


A Series Insert + C Series Holder

A25: 58 - 61



A25: 42 - 45



Key on A25:1

Sizes not shown are available upon request.
When ordering, please follow the example below:

Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

COMING JANUARY

T-A Pro HSS Drill ...

2 Series ... 1.379" (24.38mm - 35.04mm)





Series	Fractional Equivalent	Insert D_1 inch	Insert D_1 mm	T_1	Part No.
2-C		1.1220	28.50	3/16	TAX2-28.50
2-C	1-1/8	1.1252	28.58	3/16	TAX2-28.58
2-C		1.1299	28.70	3/16	TAX2-28.70
2-C		1.1339	28.80	3/16	TAX2-28.80
2-C		1.1378	28.90	3/16	TAX2-28.90
2-C		1.1417	29.00	3/16	TAX2-29.00
2-C		1.1457	29.10	3/16	TAX2-29.10
2-C		1.1496	29.20	3/16	TAX2-29.20
2-C		1.1535	29.30	3/16	TAX2-29.30
2-C	1-5/32	1.1563	29.37	3/16	TAX2-29.37
2-C		1.1575	29.40	3/16	TAX2-29.40
2-C		1.1614	29.50	3/16	TAX2-29.50
2-C		1.1654	29.60	3/16	TAX2-29.60
2-C		1.1693	29.70	3/16	TAX2-29.70
2-C		1.1732	29.80	3/16	TAX2-29.80
2-C		1.1772	29.90	3/16	TAX2-29.90
2-C		1.1811	30.00	3/16	TAX2-30.00
2-C		1.1850	30.10	3/16	TAX2-30.10
2-C	1-3/16	1.1874	30.16	3/16	TAX2-30.16
2-C		1.1890	30.20	3/16	TAX2-30.20
2-C		1.1929	30.30	3/16	TAX2-30.30
2-C		1.1969	30.40	3/16	TAX2-30.40
2-C		1.2008	30.50	3/16	TAX2-30.50
2-C		1.2047	30.60	3/16	TAX2-30.60
2-C		1.2087	30.70	3/16	TAX2-30.70
2-C		1.2126	30.80	3/16	TAX2-30.80
2-C		1.2165	30.90	3/16	TAX2-30.90
2-C	1-7/32	1.2189	30.96	3/16	TAX2-30.96
2-C		1.2205	31.00	3/16	TAX2-31.00
2-C		1.2244	31.10	3/16	TAX2-31.10
2-C		1.2283	31.20	3/16	TAX2-31.20
2-C		1.2323	31.30	3/16	TAX2-31.30
2-C		1.2362	31.40	3/16	TAX2-31.40
2-C		1.2402	31.50	3/16	TAX2-31.50
2-C		1.2441	31.60	3/16	TAX2-31.60

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.



A Series Insert + A Series Holder



C Series Insert + A Series Holder

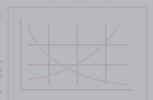


C Series Insert + C Series Holder

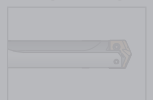


A Series Insert + C Series Holder

A25: 58 - 61



A25: 42 - 45



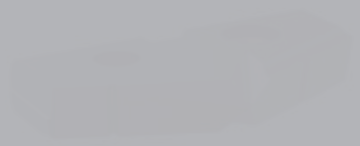
Sizes not shown are available upon request.
When ordering, please follow the example below:

Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

COMING JANUARY

T-A Pro HSS Drill Inserts

2 Series | Diameter Range: 0.960" - 1.379" (24.38mm - 35.04mm)







Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	Insert Part No.
2-D		1.2480	31.70	3/16	TAP2-31700
2-D	1-1/4	1.2500	31.75	3/16	TAP2-31750
2-D		1.2520	31.80	3/16	TAP2-31800
2-D		1.2559	31.90	3/16	TAP2-31900
2-D		1.2598	32.00	3/16	TAP2-32000
2-D		1.2638	32.10	3/16	TAP2-32100
2-D	1-17/64	1.2657	32.15	3/16	TAP2-32150
2-D		1.2677	32.20	3/16	TAP2-32200
2-D		1.2717	32.30	3/16	TAP2-32300
2-D		1.2756	32.40	3/16	TAP2-32400
2-D		1.2795	32.50	3/16	TAP2-32500
2-D	1-9/32	1.2815	32.55	3/16	TAP2-32550
2-D		1.2835	32.60	3/16	TAP2-32600
2-D		1.2874	32.70	3/16	TAP2-32700
2-D		1.2913	32.80	3/16	TAP2-32800
2-D		1.2953	32.90	3/16	TAP2-32900
2-D		1.2992	33.00	3/16	TAP2-33000
2-D		1.3031	33.10	3/16	TAP2-33100
2-D		1.3071	33.20	3/16	TAP2-33200
2-D		1.3110	33.30	3/16	TAP2-33300
2-D	1-5/16	1.3126	33.34	3/16	TAP2-33340
2-D		1.3150	33.40	3/16	TAP2-33400
2-D		1.3189	33.50	3/16	TAP2-33500
2-D		1.3228	33.60	3/16	TAP2-33600
2-D		1.3268	33.70	3/16	TAP2-33700
2-D		1.3307	33.80	3/16	TAP2-33800
2-D		1.3346	33.90	3/16	TAP2-33900
2-D		1.3386	34.00	3/16	TAP2-34000
2-D		1.3425	34.10	3/16	TAP2-34100
2-D	1-11/32	1.3437	34.13	3/16	TAP2-34130
2-D		1.3465	34.20	3/16	TAP2-34200
2-D		1.3504	34.30	3/16	TAP2-34300
2-D		1.3543	34.40	3/16	TAP2-34400
2-D		1.3583	34.50	3/16	TAP2-34500
2-D		1.3622	34.60	3/16	TAP2-34600
2-D		1.3661	34.70	3/16	TAP2-34700
2-D		1.3701	34.80	3/16	TAP2-34800
2-D		1.3740	34.90	3/16	TAP2-34900
2-D	1-3/8	1.3752	34.93	3/16	TAP2-34930
2-D		1.3780	35.00	3/16	TAP2-35000

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.



A Series Insert + A Series Holder



C Series Insert + A Series Holder



C Series Insert + C Series Holder

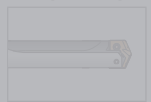


A Series Insert + C Series Holder

A25: 58 - 61



A25: 42 - 45



Key on A25:1

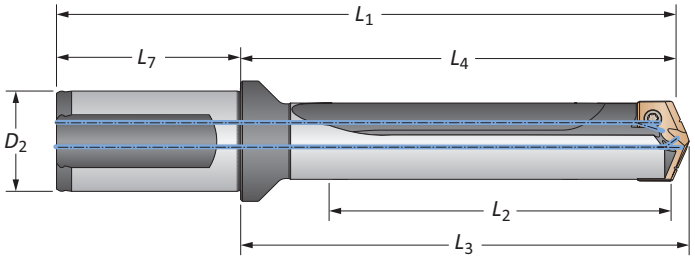
Sizes not shown are available upon request.
When ordering, please follow the example below:

Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

T-A Pro Drill Holders

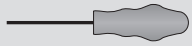
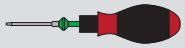
2 Series Imperial | Diameter Range: 0.960" - 1.379"





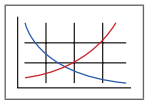
	Length	Sub Series	Body L_2	Body L_4	Body L_3	Body L_1	Shank L_7	Shank D_2	Shank Flat	Part No
	STUB	A	1.171	2.954	3.094	5.234	2.280	1-1/4	Yes	**HTA2A01-125F**
	STUB	A	1.171	2.954	3.094	5.234	2.280	1-1/4	No	**HTA2A01-125C**
	STUB	B	1.171	2.954	3.094	5.234	2.280	1-1/4	Yes	**HTA2B01-125F**
	STUB	B	1.171	2.954	3.094	5.234	2.280	1-1/4	No	**HTA2B01-125C**
	STUB	C	1.171	2.954	3.094	5.234	2.280	1-1/4	Yes	**HTA2C01-125F**
	STUB	C	1.171	2.954	3.094	5.234	2.280	1-1/4	No	**HTA2C01-125C**
	STUB	D	1.171	2.954	3.094	5.234	2.280	1-1/4	Yes	**HTA2D01-125F**
	STUB	D	1.171	2.954	3.094	5.234	2.280	1-1/4	No	**HTA2D01-125C**
	3xD	A	3.513	5.411	5.551	7.691	2.280	1-1/4	Yes	**HTA2A03-125F**
	3xD	A	3.513	5.411	5.551	7.691	2.280	1-1/4	No	**HTA2A03-125C**
	3xD	B	3.513	5.411	5.551	7.691	2.280	1-1/4	Yes	**HTA2B03-125F**
	3xD	B	3.513	5.411	5.551	7.691	2.280	1-1/4	No	**HTA2B03-125C**
	3xD	C	3.513	5.411	5.551	7.691	2.280	1-1/4	Yes	**HTA2C03-125F**
	3xD	C	3.513	5.411	5.551	7.691	2.280	1-1/4	No	**HTA2C03-125C**
	3xD	D	3.513	5.411	5.551	7.691	2.280	1-1/4	Yes	**HTA2D03-125F**
	3xD	D	3.513	5.411	5.551	7.691	2.280	1-1/4	No	**HTA2D03-125C**
ⓘ	5xD	A	5.855	7.753	7.893	10.033	2.280	1-1/4	Yes	**HTA2A05-125F**
	5xD	A	5.855	7.753	7.893	10.033	2.280	1-1/4	No	**HTA2A05-125C**
	5xD	B	5.855	7.753	7.893	10.033	2.280	1-1/4	Yes	**HTA2B05-125F**
	5xD	B	5.855	7.753	7.893	10.033	2.280	1-1/4	No	**HTA2B05-125C**
	5xD	C	5.855	7.753	7.893	10.033	2.280	1-1/4	Yes	**HTA2C05-125F**
	5xD	C	5.855	7.753	7.893	10.033	2.280	1-1/4	No	**HTA2C05-125C**
	5xD	D	5.855	7.753	7.893	10.033	2.280	1-1/4	Yes	**HTA2D05-125F**
	5xD	D	5.855	7.753	7.893	10.033	2.280	1-1/4	No	**HTA2D05-125C**
	7xD	A	8.197	10.095	10.235	12.375	2.280	1-1/4	Yes	**HTA2A07-125F**
	7xD	A	8.197	10.095	10.235	12.375	2.280	1-1/4	No	**HTA2A07-125C**
	7xD	B	8.197	10.095	10.235	12.375	2.280	1-1/4	Yes	**HTA2B07-125F**
	7xD	B	8.197	10.095	10.235	12.375	2.280	1-1/4	No	**HTA2B07-125C**
	7xD	C	8.197	10.095	10.235	12.375	2.280	1-1/4	Yes	**HTA2C07-125F**
	7xD	C	8.197	10.095	10.235	12.375	2.280	1-1/4	No	**HTA2C07-125C**
	7xD	D	8.197	10.095	10.235	12.375	2.280	1-1/4	Yes	**HTA2D07-125F**
	7xD	D	8.197	10.095	10.235	12.375	2.280	1-1/4	No	**HTA2D07-125C**

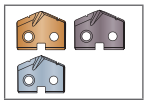
Connection Accessories

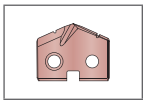
 Insert Screws	 Nylon Locking Screws	 Insert Driver	 Preset Torque Hand Driver	 Replacement Tips	Admissible Tightening Torque*
7495-IP15-1	7495N-IP15-1	8IP-15	8IP-15TL	8IP-15B	61.0 in-lbs (690 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

⚠ WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
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A25: 58 - 61 
Key on A25: 1

A25: 34 - 37 

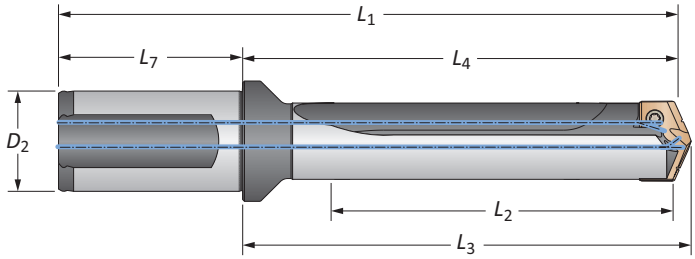
A25: 38 - 41 

ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Drill Holders

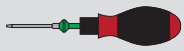
2 Series Imperial | Diameter Range: 0.960" - 1.379"





	Length	Sub Series	Body L_2	Body L_4	Body L_3	Body L_1	Shank L_7	Shank D_2	Shank Flat	Part No
	10xD	A	11.710	13.608	13.748	15.888	2.280	1-1/4	Yes	⚠ HTA2A10-125F
	10xD	A	11.710	13.608	13.748	15.888	2.280	1-1/4	No	⚠ HTA2A10-125C
	10xD	B	11.710	13.608	13.748	15.888	2.280	1-1/4	Yes	⚠ HTA2B10-125F
	10xD	B	11.710	13.608	13.748	15.888	2.280	1-1/4	No	⚠ HTA2B10-125C
	10xD	C	11.710	13.608	13.748	15.888	2.280	1-1/4	Yes	⚠ HTA2C10-125F
	10xD	C	11.710	13.608	13.748	15.888	2.280	1-1/4	No	⚠ HTA2C10-125C
	10xD	D	11.710	13.608	13.748	15.888	2.280	1-1/4	Yes	⚠ HTA2D10-125F
	10xD	D	11.710	13.608	13.748	15.888	2.280	1-1/4	No	⚠ HTA2D10-125C
	12xD	A	14.052	15.950	16.090	18.230	2.280	1-1/4	Yes	⚠ HTA2A12-125F
	12xD	A	14.052	15.950	16.090	18.230	2.280	1-1/4	No	⚠ HTA2A12-125C
	12xD	B	14.052	15.950	16.090	18.230	2.280	1-1/4	Yes	⚠ HTA2B12-125F
ⓘ	12xD	B	14.052	15.950	16.090	18.230	2.280	1-1/4	No	⚠ HTA2B12-125C
	12xD	C	14.052	15.950	16.090	18.230	2.280	1-1/4	Yes	⚠ HTA2C12-125F
	12xD	C	14.052	15.950	16.090	18.230	2.280	1-1/4	No	⚠ HTA2C12-125C
	12xD	D	14.052	15.950	16.090	18.230	2.280	1-1/4	Yes	⚠ HTA2D12-125F
	12xD	D	14.052	15.950	16.090	18.230	2.280	1-1/4	No	⚠ HTA2D12-125C
	15xD	A	17.565	19.463	19.603	21.743	2.280	1-1/4	Yes	⚠ HTA2A15-125F
	15xD	A	17.565	19.463	19.603	21.743	2.280	1-1/4	No	⚠ HTA2A15-125C
	15xD	B	17.565	19.463	19.603	21.743	2.280	1-1/4	Yes	⚠ HTA2B15-125F
	15xD	B	17.565	19.463	19.603	21.743	2.280	1-1/4	No	⚠ HTA2B15-125C
	15xD	C	17.565	19.463	19.603	21.743	2.280	1-1/4	Yes	⚠ HTA2C15-125F
	15xD	C	17.565	19.463	19.603	21.743	2.280	1-1/4	No	⚠ HTA2C15-125C
	15xD	D	17.565	19.463	19.603	21.743	2.280	1-1/4	Yes	⚠ HTA2D15-125F
	15xD	D	17.565	19.463	19.603	21.743	2.280	1-1/4	No	⚠ HTA2D15-125C

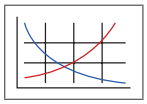
Connection Accessories

 Insert Screws	 Nylon Locking Screws	 Insert Driver	 Preset Torque Hand Driver	 Replacement Tips	Admissible Tightening Torque*
7495-IP15-1	7495N-IP15-1	8IP-15	8IP-15TL	8IP-15B	61.0 in-lbs (690 N-cm)

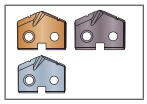
*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

⚠ WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
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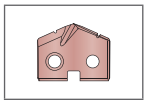
A25: 58 - 61



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A25: 38 - 41

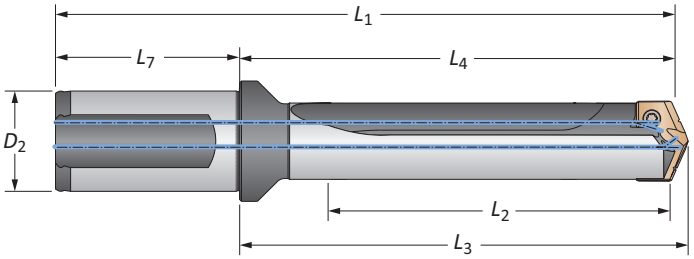


ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Drill Holders

2 Series Metric | Diameter Range: 24.38mm - 35.04mm





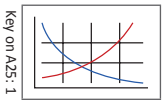
	Length	Sub Series	Body L_2	Body L_4	Body L_3	Body L_1	Shank L_7	Shank D_2	Shank Flat	Part No
	STUB	A	29.7	75.0	78.6	132.9	57.9	32	Yes	**HTA2A01-32FM**
	STUB	A	29.7	75.0	78.6	132.9	57.9	32	No	**HTA2A01-32CM**
	STUB	B	29.7	75.0	78.6	132.9	57.9	32	Yes	**HTA2B01-32FM**
	STUB	B	29.7	75.0	78.6	132.9	57.9	32	No	**HTA2B01-32CM**
	STUB	C	29.7	75.0	78.6	132.9	57.9	32	Yes	**HTA2C01-32FM**
	STUB	C	29.7	75.0	78.6	132.9	57.9	32	No	**HTA2C01-32CM**
	STUB	D	29.7	75.0	78.6	132.9	57.9	32	Yes	**HTA2D01-32FM**
	STUB	D	29.7	75.0	78.6	132.9	57.9	32	No	**HTA2D01-32CM**
	3xD	A	89.2	137.4	141.0	195.4	57.9	32	Yes	**HTA2A03-32FM**
	3xD	A	89.2	137.4	141.0	195.4	57.9	32	No	**HTA2A03-32CM**
	3xD	B	89.2	137.4	141.0	195.4	57.9	32	Yes	**HTA2B03-32FM**
	3xD	B	89.2	137.4	141.0	195.4	57.9	32	No	**HTA2B03-32CM**
	3xD	C	89.2	137.4	141.0	195.4	57.9	32	Yes	**HTA2C03-32FM**
	3xD	C	89.2	137.4	141.0	195.4	57.9	32	No	**HTA2C03-32CM**
	3xD	D	89.2	137.4	141.0	195.4	57.9	32	Yes	**HTA2D03-32FM**
ⓜ	3xD	D	89.2	137.4	141.0	195.4	57.9	32	No	**HTA2D03-32CM**
	5xD	A	148.7	196.9	200.5	254.8	57.9	32	Yes	**HTA2A05-32FM**
	5xD	A	148.7	196.9	200.5	254.8	57.9	32	No	**HTA2A05-32CM**
	5xD	B	148.7	196.9	200.5	254.8	57.9	32	Yes	**HTA2B05-32FM**
	5xD	B	148.7	196.9	200.5	254.8	57.9	32	No	**HTA2B05-32CM**
	5xD	C	148.7	196.9	200.5	254.8	57.9	32	Yes	**HTA2C05-32FM**
	5xD	C	148.7	196.9	200.5	254.8	57.9	32	No	**HTA2C05-32CM**
	5xD	D	148.7	196.9	200.5	254.8	57.9	32	Yes	**HTA2D05-32FM**
	5xD	D	148.7	196.9	200.5	254.8	57.9	32	No	**HTA2D05-32CM**
	7xD	A	208.2	256.4	260.0	314.3	57.9	32	Yes	**HTA2A07-32FM**
	7xD	A	208.2	256.4	260.0	314.3	57.9	32	No	**HTA2A07-32CM**
	7xD	B	208.2	256.4	260.0	314.3	57.9	32	Yes	**HTA2B07-32FM**
	7xD	B	208.2	256.4	260.0	314.3	57.9	32	No	**HTA2B07-32CM**
	7xD	C	208.2	256.4	260.0	314.3	57.9	32	Yes	**HTA2C07-32FM**
	7xD	C	208.2	256.4	260.0	314.3	57.9	32	No	**HTA2C07-32CM**
	7xD	D	208.2	256.4	260.0	314.3	57.9	32	Yes	**HTA2D07-32FM**
	7xD	D	208.2	256.4	260.0	314.3	57.9	32	No	**HTA2D07-32CM**

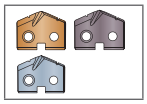
Connection Accessories

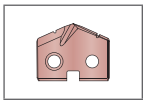
 Insert Screws	 Nylon Locking Screws	 Insert Driver	 Preset Torque Hand Driver	 Replacement Tips	Admissible Tightening Torque*
7495-IP15-1	7495N-IP15-1	8IP-15	8IP-15TL	8IP-15B	61.0 in-lbs (690 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

⚠ WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
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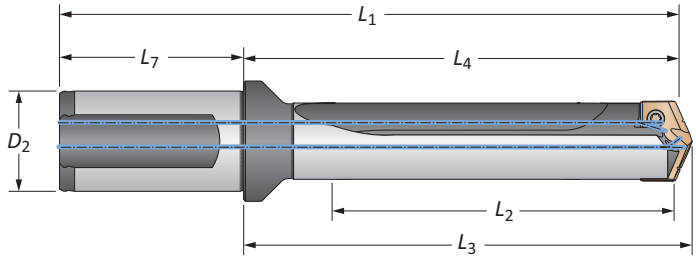
A25: 38 - 41 

ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Drill Holders

2 Series Metric | Diameter Range: 24.38mm - 35.04mm





	Length	Sub Series	Body L_2	Body L_4	Body L_3	Body L_1	Shank L_7	Shank D_2	Flat	Part No
	10xD	A	297.4	345.6	349.2	403.6	57.9	32	Yes	HTA2A10-32FM
	10xD	A	297.4	345.6	349.2	403.6	57.9	32	No	HTA2A10-32CM
	10xD	B	297.4	345.6	349.2	403.6	57.9	32	Yes	HTA2B10-32FM
	10xD	B	297.4	345.6	349.2	403.6	57.9	32	No	HTA2B10-32CM
	10xD	C	297.4	345.6	349.2	403.6	57.9	32	Yes	HTA2C10-32FM
	10xD	C	297.4	345.6	349.2	403.6	57.9	32	No	HTA2C10-32CM
	10xD	D	297.4	345.6	349.2	403.6	57.9	32	Yes	HTA2D10-32FM
	10xD	D	297.4	345.6	349.2	403.6	57.9	32	No	HTA2D10-32CM
	12xD	A	356.9	405.1	408.7	463.0	57.9	32	Yes	HTA2A12-32FM
	12xD	A	356.9	405.1	408.7	463.0	57.9	32	No	HTA2A12-32CM
	12xD	B	356.9	405.1	408.7	463.0	57.9	32	Yes	HTA2B12-32FM
ⓜ	12xD	B	356.9	405.1	408.7	463.0	57.9	32	No	HTA2B12-32CM
	12xD	C	356.9	405.1	408.7	463.0	57.9	32	Yes	HTA2C12-32FM
	12xD	C	356.9	405.1	408.7	463.0	57.9	32	No	HTA2C12-32CM
	12xD	D	356.9	405.1	408.7	463.0	57.9	32	Yes	HTA2D12-32FM
	12xD	D	356.9	405.1	408.7	463.0	57.9	32	No	HTA2D12-32CM
	15xD	A	446.2	494.4	497.9	552.3	57.9	32	Yes	HTA2A15-32FM
	15xD	A	446.2	494.4	497.9	552.3	57.9	32	No	HTA2A15-32CM
	15xD	B	446.2	494.4	497.9	552.3	57.9	32	Yes	HTA2B15-32FM
	15xD	B	446.2	494.4	497.9	552.3	57.9	32	No	HTA2B15-32CM
	15xD	C	446.2	494.4	497.9	552.3	57.9	32	Yes	HTA2C15-32FM
	15xD	C	446.2	494.4	497.9	552.3	57.9	32	No	HTA2C15-32CM
	15xD	D	446.2	494.4	497.9	552.3	57.9	32	Yes	HTA2D15-32FM
	15xD	D	446.2	494.4	497.9	552.3	57.9	32	No	HTA2D15-32CM

Connection Accessories

Insert Screws	Nylon Locking Screws	Insert Driver	Preset Torque Hand Driver	Replacement Tips	Admissible Tightening Torque*
7495-IP15-1	7495N-IP15-1	8IP-15	8IP-15TL	8IP-15B	61.0 in-lbs (690 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

⚠ WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
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A25: 58 - 61 | A25: 34 - 37 | A25: 38 - 41

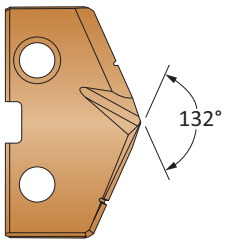
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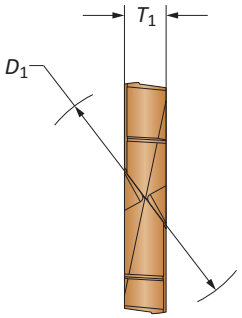
ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Carbide Drill Inserts

3 Series | Diameter Range: 1.380" - 1.882" (35.05mm - 47.80mm)





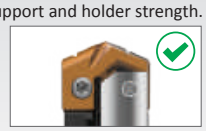


Insert								
Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	Part No. P	Part No. K	Part No. N	Part No. M
3-A	1-13/32	1.4063	35.72	1/4	TAP3-35.72	TAK3-35.72	TAN3-35.72	COMING JANUARY
3-A		1.4094	35.80	1/4	TAP3-35.80	TAK3-35.80	TAN3-35.80	
3-A		1.4134	35.90	1/4	TAP3-35.90	TAK3-35.90	TAN3-35.90	
3-A		1.4173	36.00	1/4	TAP3-36.00	TAK3-36.00	TAN3-36.00	
3-A		1.4213	36.10	1/4	TAP3-36.10	TAK3-36.10	TAN3-36.10	
3-A		1.4252	36.20	1/4	TAP3-36.20	TAK3-36.20	TAN3-36.20	
3-A		1.4291	36.30	1/4	TAP3-36.30	TAK3-36.30	TAN3-36.30	
3-A		1.4331	36.40	1/4	TAP3-36.40	TAK3-36.40	TAN3-36.40	
3-A		1.4370	36.50	1/4	TAP3-36.50	TAK3-36.50	TAN3-36.50	
3-A	1-7/16	1.4374	36.51	1/4	TAP3-36.51	TAK3-36.51	TAN3-36.51	
3-A		1.4409	36.60	1/4	TAP3-36.60	TAK3-36.60	TAN3-36.60	
3-A		1.4449	36.70	1/4	TAP3-36.70	TAK3-36.70	TAN3-36.70	
3-A		1.4488	36.80	1/4	TAP3-36.80	TAK3-36.80	TAN3-36.80	
3-A		1.4528	36.90	1/4	TAP3-36.90	TAK3-36.90	TAN3-36.90	
3-A		1.4567	37.00	1/4	TAP3-37.00	TAK3-37.00	TAN3-37.00	
3-A		1.4606	37.10	1/4	TAP3-37.10	TAK3-37.10	TAN3-37.10	
3-A		1.4646	37.20	1/4	TAP3-37.20	TAK3-37.20	TAN3-37.20	
3-A		1.4685	37.30	1/4	TAP3-37.30	TAK3-37.30	TAN3-37.30	
3-A	1-15/32	1.4689	37.31	1/4	TAP3-37.31	TAK3-37.31	TAN3-37.31	
3-A		1.4724	37.40	1/4	TAP3-37.40	TAK3-37.40	TAN3-37.40	
3-A		1.4764	37.50	1/4	TAP3-37.50	TAK3-37.50	TAN3-37.50	
3-A		1.4803	37.60	1/4	TAP3-37.60	TAK3-37.60	TAN3-37.60	
3-A		1.4843	37.70	1/4	TAP3-37.70	TAK3-37.70	TAN3-37.70	

Inserts sold in multiples of 1

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.

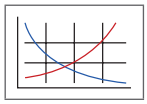

A Series Insert + A Series Holder


C Series Insert + A Series Holder

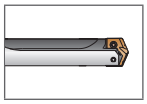

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61



A25: 54 - 57



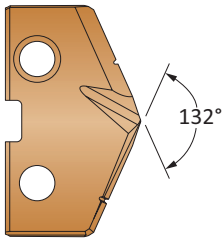
Sizes not shown are available upon request.
When ordering, please follow the example below:

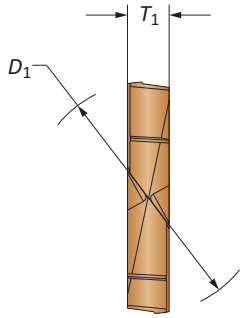
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

T-A Pro Carbide Drill Inserts

3 Series | Diameter Range: 1.380" - 1.882" (35.05mm - 47.80mm)







Insert					Part No.	Part No.	Part No.	Part No.
Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	P	K	N	M
3-B		1.4882	37.80	1/4	TAP3-37.80	TAK3-37.80	TAN3-37.80	COMING JANUARY
3-B		1.4921	37.90	1/4	TAP3-37.90	TAK3-37.90	TAN3-37.90	
3-B		1.4961	38.00	1/4	TAP3-38.00	TAK3-38.00	TAN3-38.00	
3-B	1-1/2	1.5000	38.10	1/4	TAP3-38.10	TAK3-38.10	TAN3-38.10	
3-B		1.5039	38.20	1/4	TAP3-38.20	TAK3-38.20	TAN3-38.20	
3-B		1.5079	38.30	1/4	TAP3-38.30	TAK3-38.30	TAN3-38.30	
3-B		1.5118	38.40	1/4	TAP3-38.40	TAK3-38.40	TAN3-38.40	
3-B		1.5157	38.50	1/4	TAP3-38.50	TAK3-38.50	TAN3-38.50	
3-B		1.5197	38.60	1/4	TAP3-38.60	TAK3-38.60	TAN3-38.60	
3-B		1.5236	38.70	1/4	TAP3-38.70	TAK3-38.70	TAN3-38.70	
3-B		1.5276	38.80	1/4	TAP3-38.80	TAK3-38.80	TAN3-38.80	
3-B	1-17/32	1.5311	38.89	1/4	TAP3-38.89	TAK3-38.89	TAN3-38.89	
3-B		1.5315	38.90	1/4	TAP3-38.90	TAK3-38.90	TAN3-38.90	
3-B		1.5354	39.00	1/4	TAP3-39.00	TAK3-39.00	TAN3-39.00	
3-B		1.5394	39.10	1/4	TAP3-39.10	TAK3-39.10	TAN3-39.10	
3-B		1.5433	39.20	1/4	TAP3-39.20	TAK3-39.20	TAN3-39.20	
3-B		1.5469	39.29	1/4	TAP3-39.29	TAK3-39.29	TAN3-39.29	
3-B		1.5472	39.30	1/4	TAP3-39.30	TAK3-39.30	TAN3-39.30	
3-B		1.5512	39.40	1/4	TAP3-39.40	TAK3-39.40	TAN3-39.40	
3-B		1.5551	39.50	1/4	TAP3-39.50	TAK3-39.50	TAN3-39.50	
3-B		1.5591	39.60	1/4	TAP3-39.60	TAK3-39.60	TAN3-39.60	
3-B	1-9/16	1.5626	39.69	1/4	TAP3-39.69	TAK3-39.69	TAN3-39.69	
3-B		1.5630	39.70	1/4	TAP3-39.70	TAK3-39.70	TAN3-39.70	
3-B		1.5669	39.80	1/4	TAP3-39.80	TAK3-39.80	TAN3-39.80	
3-B		1.5709	39.90	1/4	TAP3-39.90	TAK3-39.90	TAN3-39.90	
3-B		1.5748	40.00	1/4	TAP3-40.00	TAK3-40.00	TAN3-40.00	
3-B		1.5787	40.10	1/4	TAP3-40.10	TAK3-40.10	TAN3-40.10	
3-B		1.5827	40.20	1/4	TAP3-40.20	TAK3-40.20	TAN3-40.20	
3-B		1.5866	40.30	1/4	TAP3-40.30	TAK3-40.30	TAN3-40.30	
3-B		1.5906	40.40	1/4	TAP3-40.40	TAK3-40.40	TAN3-40.40	
3-B	1-19/32	1.5937	40.48	1/4	TAP3-40.48	TAK3-40.48	TAN3-40.48	
3-B		1.5945	40.50	1/4	TAP3-40.50	TAK3-40.50	TAN3-40.50	
3-B		1.5984	40.60	1/4	TAP3-40.60	TAK3-40.60	TAN3-40.60	
3-B		1.6024	40.70	1/4	TAP3-40.70	TAK3-40.70	TAN3-40.70	
3-B		1.6063	40.80	1/4	TAP3-40.80	TAK3-40.80	TAN3-40.80	
3-B		1.6102	40.90	1/4	TAP3-40.90	TAK3-40.90	TAN3-40.90	

Inserts sold in multiples of 1

Sub Series Holders (A, B, C, D)

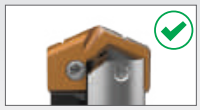
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A Series Insert + A Series Holder



C Series Insert + A Series Holder

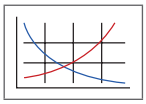


C Series Insert + C Series Holder



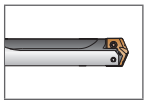
A Series Insert + C Series Holder

A25: 58 - 61



Key on A25: 1

A25: 54 - 57

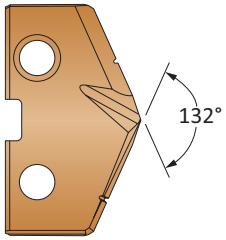


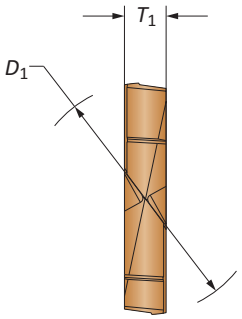
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3 Series | Diameter Range: 1.380" - 1.882" (35.05mm - 47.80mm)







Insert					Part No.	Part No.	Part No.	Part No.
Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	P	K	N	M
3-C		1.6142	41.00	1/4	TAP3-41.00	TAK3-41.00	TAN3-41.00	COMING FEBRUARY
3-C		1.6181	41.10	1/4	TAP3-41.10	TAK3-41.10	TAN3-41.10	
3-C		1.6220	41.20	1/4	TAP3-41.20	TAK3-41.20	TAN3-41.20	
3-C	1-5/8	1.6252	41.28	1/4	TAP3-41.28	TAK3-41.28	TAN3-41.28	
3-C		1.6260	41.30	1/4	TAP3-41.30	TAK3-41.30	TAN3-41.30	
3-C		1.6299	41.40	1/4	TAP3-41.40	TAK3-41.40	TAN3-41.40	
3-C		1.6339	41.50	1/4	TAP3-41.50	TAK3-41.50	TAN3-41.50	
3-C		1.6378	41.60	1/4	TAP3-41.60	TAK3-41.60	TAN3-41.60	
3-C		1.6417	41.70	1/4	TAP3-41.70	TAK3-41.70	TAN3-41.70	
3-C		1.6457	41.80	1/4	TAP3-41.80	TAK3-41.80	TAN3-41.80	
3-C		1.6496	41.90	1/4	TAP3-41.90	TAK3-41.90	TAN3-41.90	
3-C		1.6535	42.00	1/4	TAP3-42.00	TAK3-42.00	TAN3-42.00	
3-C	1-21/32	1.6563	42.07	1/4	TAP3-42.07	TAK3-42.07	TAN3-42.07	
3-C		1.6575	42.10	1/4	TAP3-42.10	TAK3-42.10	TAN3-42.10	
3-C		1.6614	42.20	1/4	TAP3-42.20	TAK3-42.20	TAN3-42.20	
3-C		1.6654	42.30	1/4	TAP3-42.30	TAK3-42.30	TAN3-42.30	
3-C		1.6693	42.40	1/4	TAP3-42.40	TAK3-42.40	TAN3-42.40	
3-C		1.6732	42.50	1/4	TAP3-42.50	TAK3-42.50	TAN3-42.50	
3-C		1.6772	42.60	1/4	TAP3-42.60	TAK3-42.60	TAN3-42.60	
3-C		1.6811	42.70	1/4	TAP3-42.70	TAK3-42.70	TAN3-42.70	
3-C		1.6850	42.80	1/4	TAP3-42.80	TAK3-42.80	TAN3-42.80	
3-C	1-11/16	1.6874	42.86	1/4	TAP3-42.86	TAK3-42.86	TAN3-42.86	
3-C		1.6890	42.90	1/4	TAP3-42.90	TAK3-42.90	TAN3-42.90	
3-C		1.6929	43.00	1/4	TAP3-43.00	TAK3-43.00	TAN3-43.00	
3-C		1.6969	43.10	1/4	TAP3-43.10	TAK3-43.10	TAN3-43.10	
3-C		1.7008	43.20	1/4	TAP3-43.20	TAK3-43.20	TAN3-43.20	
3-C		1.7047	43.30	1/4	TAP3-43.30	TAK3-43.30	TAN3-43.30	
3-C		1.7087	43.40	1/4	TAP3-43.40	TAK3-43.40	TAN3-43.40	
3-C		1.7126	43.50	1/4	TAP3-43.50	TAK3-43.50	TAN3-43.50	
3-C		1.7165	43.60	1/4	TAP3-43.60	TAK3-43.60	TAN3-43.60	
3-C	1-23/32	1.7189	43.66	1/4	TAP3-43.66	TAK3-43.66	TAN3-43.66	
3-C		1.7205	43.70	1/4	TAP3-43.70	TAK3-43.70	TAN3-43.70	
3-C		1.7244	43.80	1/4	TAP3-43.80	TAK3-43.80	TAN3-43.80	
3-C		1.7283	43.90	1/4	TAP3-43.90	TAK3-43.90	TAN3-43.90	
3-C		1.7323	44.00	1/4	TAP3-44.00	TAK3-44.00	TAN3-44.00	
3-C		1.7362	44.10	1/4	TAP3-44.10	TAK3-44.10	TAN3-44.10	
3-C		1.7402	44.20	1/4	TAP3-44.20	TAK3-44.20	TAN3-44.20	
3-C		1.7441	44.30	1/4	TAP3-44.30	TAK3-44.30	TAN3-44.30	

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Sub Series Holders (A, B, C, D)

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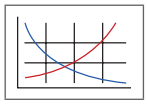

A Series Insert + A Series Holder


C Series Insert + A Series Holder

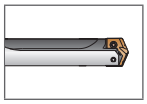

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61



A25: 54 - 57



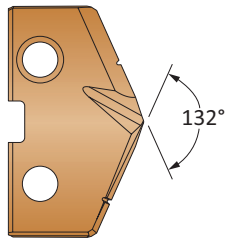
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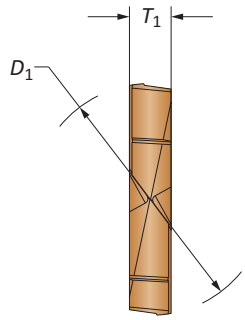
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T-A Pro Carbide Drill Inserts

3 Series | Diameter Range: 1.380" - 1.882" (35.05mm - 47.80mm)







Insert					Part No.	Part No.	Part No.	Part No.
Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	P	K	N	M
3-D		1.7480	44.40	1/4	TAP3-44.40	TAK3-44.40	TAN3-44.40	COMING FEBRUARY
3-D	1-3/4	1.7500	44.45	1/4	TAP3-44.45	TAK3-44.45	TAN3-44.45	
3-D		1.7520	44.50	1/4	TAP3-44.50	TAK3-44.50	TAN3-44.50	
3-D		1.7559	44.60	1/4	TAP3-44.60	TAK3-44.60	TAN3-44.60	
3-D		1.7598	44.70	1/4	TAP3-44.70	TAK3-44.70	TAN3-44.70	
3-D		1.7638	44.80	1/4	TAP3-44.80	TAK3-44.80	TAN3-44.80	
3-D		1.7677	44.90	1/4	TAP3-44.90	TAK3-44.90	TAN3-44.90	
3-D		1.7717	45.00	1/4	TAP3-45.00	TAK3-45.00	TAN3-45.00	
3-D		1.7756	45.10	1/4	TAP3-45.10	TAK3-45.10	TAN3-45.10	
3-D		1.7795	45.20	1/4	TAP3-45.20	TAK3-45.20	TAN3-45.20	
3-D	1-25/32	1.7811	45.24	1/4	TAP3-45.24	TAK3-45.24	TAN3-45.24	
3-D		1.7835	45.30	1/4	TAP3-45.30	TAK3-45.30	TAN3-45.30	
3-D		1.7874	45.40	1/4	TAP3-45.40	TAK3-45.40	TAN3-45.40	
3-D		1.7913	45.50	1/4	TAP3-45.50	TAK3-45.50	TAN3-45.50	
3-D		1.7913	45.50	1/4	TAP3-45.50	TAK3-45.50	TAN3-45.50	
3-D		1.7953	45.60	1/4	TAP3-45.60	TAK3-45.60	TAN3-45.60	
3-D		1.7969	45.64	1/4	TAP3-45.64	TAK3-45.64	TAN3-45.64	
3-D		1.7992	45.70	1/4	TAP3-45.70	TAK3-45.70	TAN3-45.70	
3-D		1.8031	45.80	1/4	TAP3-45.80	TAK3-45.80	TAN3-45.80	
3-D		1.8071	45.90	1/4	TAP3-45.90	TAK3-45.90	TAN3-45.90	
3-D		1.8110	46.00	1/4	TAP3-46.00	TAK3-46.00	TAN3-46.00	
3-D	1-13/16	1.8126	46.04	1/4	TAP3-46.04	TAK3-46.04	TAN3-46.04	
3-D		1.8150	46.10	1/4	TAP3-46.10	TAK3-46.10	TAN3-46.10	
3-D		1.8189	46.20	1/4	TAP3-46.20	TAK3-46.20	TAN3-46.20	
3-D		1.8228	46.30	1/4	TAP3-46.30	TAK3-46.30	TAN3-46.30	
3-D		1.8268	46.40	1/4	TAP3-46.40	TAK3-46.40	TAN3-46.40	
3-D		1.8307	46.50	1/4	TAP3-46.50	TAK3-46.50	TAN3-46.50	
3-D		1.8346	46.60	1/4	TAP3-46.60	TAK3-46.60	TAN3-46.60	
3-D		1.8386	46.70	1/4	TAP3-46.70	TAK3-46.70	TAN3-46.70	
3-D		1.8425	46.80	1/4	TAP3-46.80	TAK3-46.80	TAN3-46.80	
3-D	1-27/32	1.8437	46.83	1/4	TAP3-46.83	TAK3-46.83	TAN3-46.83	
3-D		1.8465	46.90	1/4	TAP3-46.90	TAK3-46.90	TAN3-46.90	
3-D		1.8504	47.00	1/4	TAP3-47.00	TAK3-47.00	TAN3-47.00	
3-D		1.8543	47.10	1/4	TAP3-47.10	TAK3-47.10	TAN3-47.10	
3-D		1.8583	47.20	1/4	TAP3-47.20	TAK3-47.20	TAN3-47.20	
3-D		1.8622	47.30	1/4	TAP3-47.30	TAK3-47.30	TAN3-47.30	
3-D		1.8661	47.40	1/4	TAP3-47.40	TAK3-47.40	TAN3-47.40	
3-D		1.8661	47.50	1/4	TAP3-47.50	TAK3-47.50	TAN3-47.50	
3-D		1.8740	47.60	1/4	TAP3-47.60	TAK3-47.60	TAN3-47.60	
3-D	1-7/8	1.8752	47.63	1/4	TAP3-47.63	TAK3-47.63	TAN3-47.63	

Inserts sold in multiples of 1

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.



A Series Insert + A Series Holder



C Series Insert + A Series Holder

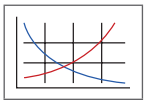


C Series Insert + C Series Holder



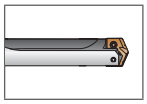
A Series Insert + C Series Holder

A25: 58 - 61



Key on A25: 1

A25: 54 - 57



Sizes not shown are available upon request. When ordering, please follow the example below:	
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

COMING JANUARY

T-A Pro HSS Drill …

3 Series … 1.882" (35.05mm - 47.80mm)





Series	Fractional Equivalent	Insert D_1 Inch	Insert D_1 mm	T_1	Part No.
3-A	1-13/32	1.4063	35.72	1/4	TAX3-35720
3-A		1.4094	35.80	1/4	TAX3-35800
3-A		1.4134	35.90	1/4	TAX3-35900
3-A		1.4173	36.00	1/4	TAX3-36000
3-A		1.4213	36.10	1/4	TAX3-36100
3-A		1.4252	36.20	1/4	TAX3-36200
3-A		1.4291	36.30	1/4	TAX3-36300
3-A		1.4331	36.40	1/4	TAX3-36400
3-A		1.4370	36.50	1/4	TAX3-36500
3-A	1-7/16	1.4374	36.51	1/4	TAX3-36510
3-A		1.4409	36.60	1/4	TAX3-36600
3-A		1.4449	36.70	1/4	TAX3-36700
3-A		1.4488	36.80	1/4	TAX3-36800
3-A		1.4528	36.90	1/4	TAX3-36900
3-A		1.4567	37.00	1/4	TAX3-37000
3-A		1.4606	37.10	1/4	TAX3-37100
3-A		1.4645	37.20	1/4	TAX3-37200
3-A		1.4685	37.30	1/4	TAX3-37300
3-A	1-15/32	1.4689	37.31	1/4	TAX3-37310
3-A		1.4724	37.40	1/4	TAX3-37400
3-A		1.4764	37.50	1/4	TAX3-37500
3-A		1.4803	37.60	1/4	TAX3-37600
3-A		1.4843	37.70	1/4	TAX3-37700

Inserts sold in multiples of 1

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.



A Series Insert + A Series Holder



C Series Insert + A Series Holder

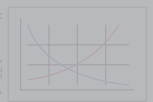


C Series Insert + C Series Holder

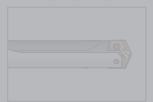


A Series Insert + C Series Holder

A25: 58 - 61



A25: 54 - 57



Key on A25: 1

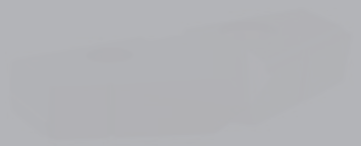
Sizes not shown are available upon request.
When ordering, please follow the example below:

Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

COMING JANUARY

T-A Pro HSS Drill Inserts

3 Series | Diameter Range: 1.380" - 1.882" (35.05mm - 47.80mm)





Series	Fractional Equivalent	D_1 Inch	D_1 mm	T_1	Insert Part No.
3-B		1.4882	37.80	1/4	TAX3-37800
3-B		1.4921	37.90	1/4	TAX3-37900
3-B		1.4961	38.00	1/4	TAX3-38000
3-B	1-1/2	1.5000	38.10	1/4	TAX3-38100
3-B		1.5039	38.20	1/4	TAX3-38200
3-B		1.5079	38.30	1/4	TAX3-38300
3-B		1.5118	38.40	1/4	TAX3-38400
3-B		1.5157	38.50	1/4	TAX3-38500
3-B		1.5197	38.60	1/4	TAX3-38600
3-B		1.5236	38.70	1/4	TAX3-38700
3-B		1.5276	38.80	1/4	TAX3-38800
3-B	1-17/32	1.5311	38.89	1/4	TAX3-38890
3-B		1.5315	38.90	1/4	TAX3-38900
3-B		1.5354	39.00	1/4	TAX3-39000
3-B		1.5394	39.10	1/4	TAX3-39100
3-B		1.5433	39.20	1/4	TAX3-39200
3-B		1.5469	39.29	1/4	TAX3-39290
3-B		1.5472	39.30	1/4	TAX3-39300
3-B		1.5512	39.40	1/4	TAX3-39400
3-B		1.5551	39.50	1/4	TAX3-39500
3-B		1.5591	39.60	1/4	TAX3-39600
3-B	1-9/16	1.5626	39.69	1/4	TAX3-39690
3-B		1.5630	39.70	1/4	TAX3-39700
3-B		1.5669	39.80	1/4	TAX3-39800
3-B		1.5709	39.90	1/4	TAX3-39900
3-B		1.5748	40.00	1/4	TAX3-40000
3-B		1.5787	40.10	1/4	TAX3-40100
3-B		1.5827	40.20	1/4	TAX3-40200
3-B		1.5866	40.30	1/4	TAX3-40300
3-B		1.5906	40.40	1/4	TAX3-40400
3-B	1-19/32	1.5937	40.48	1/4	TAX3-40480
3-B		1.5945	40.50	1/4	TAX3-40500
3-B		1.5984	40.60	1/4	TAX3-40600
3-B		1.6024	40.70	1/4	TAX3-40700
3-B		1.6063	40.80	1/4	TAX3-40800
3-B		1.6102	40.90	1/4	TAX3-40900

Inserts sold in multiples of 1

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.



A Series Insert + A Series Holder



C Series Insert + A Series Holder

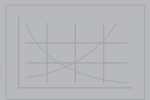


C Series Insert + C Series Holder

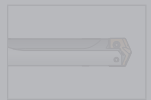


A Series Insert + C Series Holder

A25: 58 - 61



A25: 54 - 57



Key on A25.1

Sizes not shown are available upon request.
When ordering, please follow the example below:

Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

COMING JANUARY

T-A Pro HSS Drill …

3 Series … 1.882" (35.05mm - 47.80mm)



Series	Fractional Equivalent	D_1 inch	D_1 mm	T_1	Insert Part No. X
3-C		1.6142	41.00	1/4	TAX3-41.00
3-C		1.6181	41.10	1/4	TAX3-41.10
3-C		1.6220	41.20	1/4	TAX3-41.20
3-C	1-5/8	1.6252	41.28	1/4	TAX3-41.28
3-C		1.6260	41.30	1/4	TAX3-41.30
3-C		1.6299	41.40	1/4	TAX3-41.40
3-C		1.6339	41.50	1/4	TAX3-41.50
3-C		1.6378	41.60	1/4	TAX3-41.60
3-C		1.6417	41.70	1/4	TAX3-41.70
3-C		1.6457	41.80	1/4	TAX3-41.80
3-C		1.6496	41.90	1/4	TAX3-41.90
3-C		1.6535	42.00	1/4	TAX3-42.00
3-C	1-21/32	1.6563	42.07	1/4	TAX3-42.07
3-C		1.6575	42.10	1/4	TAX3-42.10
3-C		1.6614	42.20	1/4	TAX3-42.20
3-C		1.6654	42.30	1/4	TAX3-42.30
3-C		1.6693	42.40	1/4	TAX3-42.40
3-C		1.6732	42.50	1/4	TAX3-42.50
3-C		1.6772	42.60	1/4	TAX3-42.60
3-C		1.6811	42.70	1/4	TAX3-42.70
3-C		1.6850	42.80	1/4	TAX3-42.80
3-C	1-11/16	1.6874	42.86	1/4	TAX3-42.86
3-C		1.6890	42.90	1/4	TAX3-42.90
3-C		1.6929	43.00	1/4	TAX3-43.00
3-C		1.6969	43.10	1/4	TAX3-43.10
3-C		1.7008	43.20	1/4	TAX3-43.20
3-C		1.7047	43.30	1/4	TAX3-43.30
3-C		1.7087	43.40	1/4	TAX3-43.40
3-C		1.7126	43.50	1/4	TAX3-43.50
3-C		1.7165	43.60	1/4	TAX3-43.60
3-C	1-23/32	1.7189	43.66	1/4	TAX3-43.66
3-C		1.7205	43.70	1/4	TAX3-43.70
3-C		1.7244	43.80	1/4	TAX3-43.80
3-C		1.7283	43.90	1/4	TAX3-43.90
3-C		1.7323	44.00	1/4	TAX3-44.00
3-C		1.7362	44.10	1/4	TAX3-44.10
3-C		1.7402	44.20	1/4	TAX3-44.20
3-C		1.7441	44.30	1/4	TAX3-44.30

Inserts sold in multiples of 1

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.

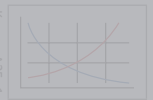

A Series Insert + A Series Holder


C Series Insert + A Series Holder

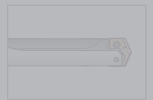

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61



A25: 54 - 57



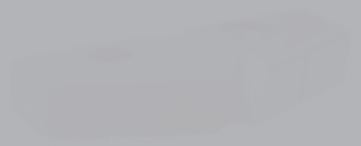
Sizes not shown are available upon request.
When ordering, please follow the example below:

Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

COMING JANUARY

T-A Pro HSS Drill Inserts

3 Series | Diameter Range: 1.380" - 1.882" (35.05mm - 47.80mm)







Series	Fractional Equivalent	Insert D_1 inch	D_1 mm	f_1	Part No. X
3-D		1.7480	44.40	1/4	TAX2-44400
3-D	1-3/4	1.7500	44.45	1/4	TAX2-44450
3-D		1.7520	44.50	1/4	TAX2-44500
3-D		1.7559	44.60	1/4	TAX2-44600
3-D		1.7598	44.70	1/4	TAX2-44700
3-D		1.7638	44.80	1/4	TAX2-44800
3-D		1.7677	44.90	1/4	TAX2-44900
3-D		1.7717	45.00	1/4	TAX2-45000
3-D		1.7756	45.10	1/4	TAX2-45100
3-D		1.7795	45.20	1/4	TAX2-45200
3-D	1-25/32	1.7811	45.24	1/4	TAX2-45240
3-D		1.7835	45.30	1/4	TAX2-45300
3-D		1.7874	45.40	1/4	TAX2-45400
3-D		1.7913	45.50	1/4	TAX2-45500
3-D		1.7913	45.50	1/4	TAX2-45500
3-D		1.7953	45.60	1/4	TAX2-45600
3-D		1.7969	45.64	1/4	TAX2-45640
3-D		1.7992	45.70	1/4	TAX2-45700
3-D		1.8031	45.80	1/4	TAX2-45800
3-D		1.8071	45.90	1/4	TAX2-45900
3-D		1.8110	46.00	1/4	TAX2-46000
3-D	1-13/16	1.8126	46.04	1/4	TAX2-46040
3-D		1.8150	46.10	1/4	TAX2-46100
3-D		1.8189	46.20	1/4	TAX2-46200
3-D		1.8228	46.30	1/4	TAX2-46300
3-D		1.8268	46.40	1/4	TAX2-46400
3-D		1.8307	46.50	1/4	TAX2-46500
3-D		1.8346	46.60	1/4	TAX2-46600
3-D		1.8386	46.70	1/4	TAX2-46700
3-D		1.8425	46.80	1/4	TAX2-46800
3-D	1-27/32	1.8437	46.83	1/4	TAX2-46830
3-D		1.8465	46.90	1/4	TAX2-46900
3-D		1.8504	47.00	1/4	TAX2-47000
3-D		1.8543	47.10	1/4	TAX2-47100
3-D		1.8583	47.20	1/4	TAX2-47200
3-D		1.8622	47.30	1/4	TAX2-47300
3-D		1.8661	47.40	1/4	TAX2-47400
3-D		1.8661	47.50	1/4	TAX2-47500
3-D		1.8740	47.60	1/4	TAX2-47600
3-D	1-7/8	1.8752	47.63	1/4	TAX2-47630

Inserts sold in multiples of 1

Sub Series Holders (A, B, C, D)

Sub series holders are recommended when running carbide inserts toward the upper end of the series drill range, as well as in tougher applications requiring more insert support and holder strength. **NOTE:** Only specified sub series inserts should be used with equivalent or smaller sub series holders.

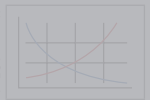

A Series Insert + A Series Holder


C Series Insert + A Series Holder

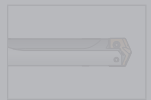

C Series Insert + C Series Holder


A Series Insert + C Series Holder

A25: 58 - 61



A25: 54 - 57



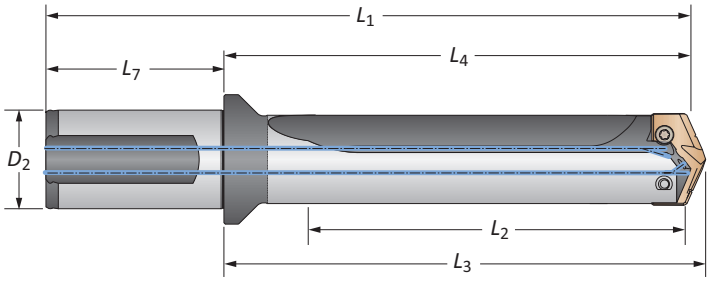
Key on A25:1

Sizes not shown are available upon request. When ordering, please follow the example below:	
Imperial:	0.5180", Steel, 0 series = use Part No. **TAP0-13.16**
Metric:	13.16mm, Steel, 0 series = use Part No. **TAP0-13.16**

T-A Pro Drill Holders

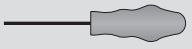
3 Series Imperial | Diameter Range: 1.380" - 1.882"





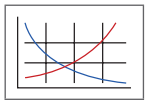
	Length	Sub Series	Body L_2	Body L_4	Body L_3	Body L_1	Shank L_7	Shank D_2	Flat	Part No
	STUB	A	1.618	3.634	3.821	6.322	2.688	1-1/2	Yes	**HTA3A01-150F**
	STUB	A	1.618	3.634	3.821	6.322	2.688	1-1/2	No	**HTA3A01-150C**
	STUB	B	1.618	3.634	3.821	6.322	2.688	1-1/2	Yes	**HTA3B01-150F**
	STUB	B	1.618	3.634	3.821	6.322	2.688	1-1/2	No	**HTA3B01-150C**
	STUB	C	1.618	3.634	3.821	6.322	2.688	1-1/2	Yes	**HTA3C01-150F**
	STUB	C	1.618	3.634	3.821	6.322	2.688	1-1/2	No	**HTA3C01-150C**
	STUB	D	1.618	3.634	3.821	6.322	2.688	1-1/2	Yes	**HTA3D01-150F**
	STUB	D	1.618	3.634	3.821	6.322	2.688	1-1/2	No	**HTA3D01-150C**
	3xD	A	4.854	7.089	7.276	9.777	2.688	1-1/2	Yes	**HTA3A03-150F**
	3xD	A	4.854	7.089	7.276	9.777	2.688	1-1/2	No	**HTA3A03-150C**
	3xD	B	4.854	7.089	7.276	9.777	2.688	1-1/2	Yes	**HTA3B03-150F**
	3xD	B	4.854	7.089	7.276	9.777	2.688	1-1/2	No	**HTA3B03-150C**
	3xD	C	4.854	7.089	7.276	9.777	2.688	1-1/2	Yes	**HTA3C03-150F**
	3xD	C	4.854	7.089	7.276	9.777	2.688	1-1/2	No	**HTA3C03-150C**
	3xD	D	4.854	7.089	7.276	9.777	2.688	1-1/2	Yes	**HTA3D03-150F**
	3xD	D	4.854	7.089	7.276	9.777	2.688	1-1/2	No	**HTA3D03-150C**
	5xD	A	8.090	10.325	10.512	13.013	2.688	1-1/2	Yes	**HTA3A05-150F**
	5xD	A	8.090	10.325	10.512	13.013	2.688	1-1/2	No	**HTA3A05-150C**
	5xD	B	8.090	10.325	10.512	13.013	2.688	1-1/2	Yes	**HTA3B05-150F**
	5xD	B	8.090	10.325	10.512	13.013	2.688	1-1/2	No	**HTA3B05-150C**
	5xD	C	8.090	10.325	10.512	13.013	2.688	1-1/2	Yes	**HTA3C05-150F**
	5xD	C	8.090	10.325	10.512	13.013	2.688	1-1/2	No	**HTA3C05-150C**
	5xD	D	8.090	10.325	10.512	13.013	2.688	1-1/2	Yes	**HTA3D05-150F**
	5xD	D	8.090	10.325	10.512	13.013	2.688	1-1/2	No	**HTA3D05-150C**
	7xD	A	11.326	13.561	13.748	16.249	2.688	1-1/2	Yes	**HTA3A07-150F**
	7xD	A	11.326	13.561	13.748	16.249	2.688	1-1/2	No	**HTA3A07-150C**
	7xD	B	11.326	13.561	13.748	16.249	2.688	1-1/2	Yes	**HTA3B07-150F**
	7xD	B	11.326	13.561	13.748	16.249	2.688	1-1/2	No	**HTA3B07-150C**
	7xD	C	11.326	13.561	13.748	16.249	2.688	1-1/2	Yes	**HTA3C07-150F**
	7xD	C	11.326	13.561	13.748	16.249	2.688	1-1/2	No	**HTA3C07-150C**
	7xD	D	11.326	13.561	13.748	16.249	2.688	1-1/2	Yes	**HTA3D07-150F**
	7xD	D	11.326	13.561	13.748	16.249	2.688	1-1/2	No	**HTA3D07-150C**

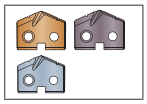
Connection Accessories

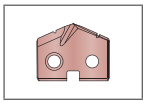
 Insert Screws	 Nylon Locking Screws	 Insert Driver	Admissible Tightening Torque*
7514-IP20-1	7514N-IP20-1	8IP-20	121.3 in-lbs (1370 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

⚠ WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
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A25: 58 - 61 
Key on A25: 1

A25: 46 - 49 

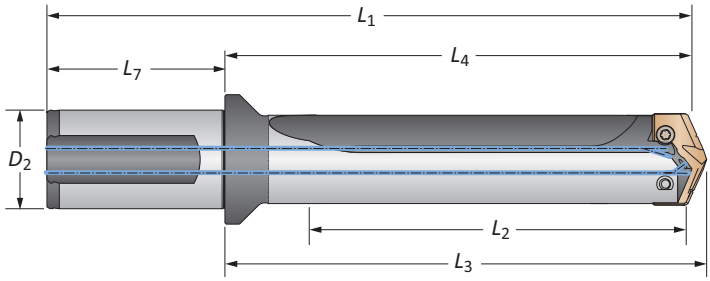
A25: 50 - 53 

ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Drill Holders

3 Series Imperial | Diameter Range: 1.380" - 1.882"





	Length	Sub Series	Body L_2	Body L_4	Body L_3	Body L_1	Shank L_7	Shank D_2	Flat	Part No
	10xD	A	16.180	18.415	18.602	21.103	2.688	1-1/2	Yes	HTA3A10-150F
	10xD	A	16.180	18.415	18.602	21.103	2.688	1-1/2	No	HTA3A10-150C
	10xD	B	16.180	18.415	18.602	21.103	2.688	1-1/2	Yes	HTA3B10-150F
	10xD	B	16.180	18.415	18.602	21.103	2.688	1-1/2	No	HTA3B10-150C
	10xD	C	16.180	18.415	18.602	21.103	2.688	1-1/2	Yes	HTA3C10-150F
	10xD	C	16.180	18.415	18.602	21.103	2.688	1-1/2	No	HTA3C10-150C
	10xD	D	16.180	18.415	18.602	21.103	2.688	1-1/2	Yes	HTA3D10-150F
	10xD	D	16.180	18.415	18.602	21.103	2.688	1-1/2	No	HTA3D10-150C
	12xD	A	19.416	21.651	21.838	24.339	2.688	1-1/2	Yes	HTA3A12-150F
	12xD	A	19.416	21.651	21.838	24.339	2.688	1-1/2	No	HTA3A12-150C
	12xD	B	19.416	21.651	21.838	24.339	2.688	1-1/2	Yes	HTA3B12-150F
ⓘ	12xD	B	19.416	21.651	21.838	24.339	2.688	1-1/2	No	HTA3B12-150C
	12xD	C	19.416	21.651	21.838	24.339	2.688	1-1/2	Yes	HTA3C12-150F
	12xD	C	19.416	21.651	21.838	24.339	2.688	1-1/2	No	HTA3C12-150C
	12xD	D	19.416	21.651	21.838	24.339	2.688	1-1/2	Yes	HTA3D12-150F
	12xD	D	19.416	21.651	21.838	24.339	2.688	1-1/2	No	HTA3D12-150C
	15xD	A	24.270	26.505	26.692	29.193	2.688	1-1/2	Yes	HTA3A15-150F
	15xD	A	24.270	26.505	26.692	29.193	2.688	1-1/2	No	HTA3A15-150C
	15xD	B	24.270	26.505	26.692	29.193	2.688	1-1/2	Yes	HTA3B15-150F
	15xD	B	24.270	26.505	26.692	29.193	2.688	1-1/2	No	HTA3B15-150C
	15xD	C	24.270	26.505	26.692	29.193	2.688	1-1/2	Yes	HTA3C15-150F
	15xD	C	24.270	26.505	26.692	29.193	2.688	1-1/2	No	HTA3C15-150C
	15xD	D	24.270	26.505	26.692	29.193	2.688	1-1/2	Yes	HTA3D15-150F
	15xD	D	24.270	26.505	26.692	29.193	2.688	1-1/2	No	HTA3D15-150C

Connection Accessories

Insert Screws	Nylon Locking Screws	Insert Driver	Admissible Tightening Torque*
7514-IP20-1	7514N-IP20-1	8IP-20	121.3 in-llbs (1370 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
ext: **7611** | *email:* **appeng@alliedmachine.com**

A25: 58 - 61 | A25: 46 - 49 | A25: 50 - 53

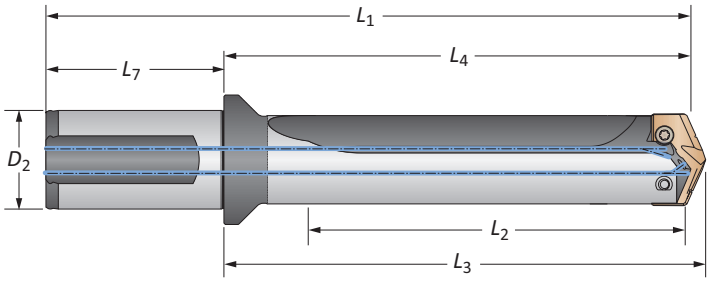
Key on A25: 1

ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Drill Holders

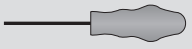
3 Series Metric | Diameter Range: 35.05mm - 47.80mm





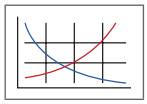
	Length	Sub Series	Body L_2	Body L_4	Body L_3	Body L_1	Shank L_7	Shank D_2	Flat	Part No
	STUB	A	41.1	92.3	97.1	160.6	68.3	40	Yes	**HTA3A01-40FM**
	STUB	A	41.1	92.3	97.1	160.6	68.3	40	No	**HTA3A01-40CM**
	STUB	B	41.1	92.3	97.1	160.6	68.3	40	Yes	**HTA3B01-40FM**
	STUB	B	41.1	92.3	97.1	160.6	68.3	40	No	**HTA3B01-40CM**
	STUB	C	41.1	92.3	97.1	160.6	68.3	40	Yes	**HTA3C01-40FM**
	STUB	C	41.1	92.3	97.1	160.6	68.3	40	No	**HTA3C01-40CM**
	STUB	D	41.1	92.3	97.1	160.6	68.3	40	Yes	**HTA3D01-40FM**
	STUB	D	41.1	92.3	97.1	160.6	68.3	40	No	**HTA3D01-40CM**
	3xD	A	123.3	180.1	184.8	248.3	68.3	40	Yes	**HTA3A03-40FM**
	3xD	A	123.3	180.1	184.8	248.3	68.3	40	No	**HTA3A03-40CM**
	3xD	B	123.3	180.1	184.8	248.3	68.3	40	Yes	**HTA3B03-40FM**
	3xD	B	123.3	180.1	184.8	248.3	68.3	40	No	**HTA3B03-40CM**
	3xD	C	123.3	180.1	184.8	248.3	68.3	40	Yes	**HTA3C03-40FM**
	3xD	C	123.3	180.1	184.8	248.3	68.3	40	No	**HTA3C03-40CM**
	3xD	D	123.3	180.1	184.8	248.3	68.3	40	Yes	**HTA3D03-40FM**
ⓜ	3xD	D	123.3	180.1	184.8	248.3	68.3	40	No	**HTA3D03-40CM**
	5xD	A	205.5	262.2	267.0	330.5	68.3	40	Yes	**HTA3A05-40FM**
	5xD	A	205.5	262.2	267.0	330.5	68.3	40	No	**HTA3A05-40CM**
	5xD	B	205.5	262.2	267.0	330.5	68.3	40	Yes	**HTA3B05-40FM**
	5xD	B	205.5	262.2	267.0	330.5	68.3	40	No	**HTA3B05-40CM**
	5xD	C	205.5	262.2	267.0	330.5	68.3	40	Yes	**HTA3C05-40FM**
	5xD	C	205.5	262.2	267.0	330.5	68.3	40	No	**HTA3C05-40CM**
	5xD	D	205.5	262.2	267.0	330.5	68.3	40	Yes	**HTA3D05-40FM**
	5xD	D	205.5	262.2	267.0	330.5	68.3	40	No	**HTA3D05-40CM**
	7xD	A	287.7	344.4	349.2	412.7	68.3	40	Yes	**HTA3A07-40FM**
	7xD	A	287.7	344.4	349.2	412.7	68.3	40	No	**HTA3A07-40CM**
	7xD	B	287.7	344.4	349.2	412.7	68.3	40	Yes	**HTA3B07-40FM**
	7xD	B	287.7	344.4	349.2	412.7	68.3	40	No	**HTA3B07-40CM**
	7xD	C	287.7	344.4	349.2	412.7	68.3	40	Yes	**HTA3C07-40FM**
	7xD	C	287.7	344.4	349.2	412.7	68.3	40	No	**HTA3C07-40CM**
	7xD	D	287.7	344.4	349.2	412.7	68.3	40	Yes	**HTA3D07-40FM**
	7xD	D	287.7	344.4	349.2	412.7	68.3	40	No	**HTA3D07-40CM**

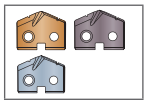
Connection Accessories

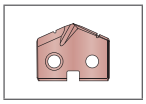
 Insert Screws	 Nylon Locking Screws	 Insert Driver	Admissible Tightening Torque*
7514-IP20-1	7514N-IP20-1	8IP-20	121.3 in-lbs (1370 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

⚠ WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
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A25: 58 - 61 
Key on A25: 1

A25: 46 - 49 

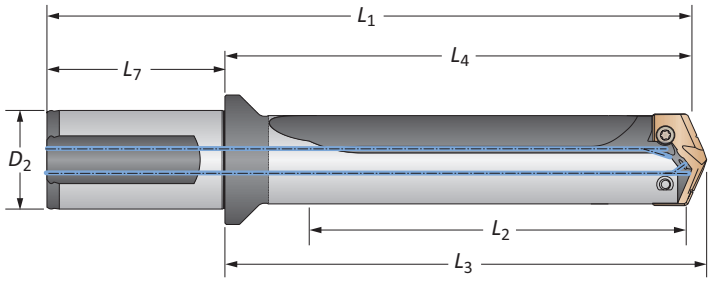
A25: 50 - 53 

ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

T-A Pro Drill Holders

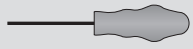
3 Series Metric | Diameter Range: 35.05mm - 47.80mm





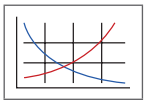
	Length	Sub Series	Body L_2	Body L_4	Body L_3	Body L_1	Shank L_7	Shank D_2	Flat	Part No
	10xD	A	411.0	467.7	472.5	536.0	68.3	40	Yes	HTA3A10-40FM
	10xD	A	411.0	467.7	472.5	536.0	68.3	40	No	HTA3A10-40CM
	10xD	B	411.0	467.7	472.5	536.0	68.3	40	Yes	HTA3B10-40FM
	10xD	B	411.0	467.7	472.5	536.0	68.3	40	No	HTA3B10-40CM
	10xD	C	411.0	467.7	472.5	536.0	68.3	40	Yes	HTA3C10-40FM
	10xD	C	411.0	467.7	472.5	536.0	68.3	40	No	HTA3C10-40CM
	10xD	D	411.0	467.7	472.5	536.0	68.3	40	Yes	HTA3D10-40FM
	10xD	D	411.0	467.7	472.5	536.0	68.3	40	No	HTA3D10-40CM
	12xD	A	493.2	549.9	554.7	618.2	68.3	40	Yes	HTA3A12-40FM
	12xD	A	493.2	549.9	554.7	618.2	68.3	40	No	HTA3A12-40CM
	12xD	B	493.2	549.9	554.7	618.2	68.3	40	Yes	HTA3B12-40FM
ⓜ	12xD	B	493.2	549.9	554.7	618.2	68.3	40	No	HTA3B12-40CM
	12xD	C	493.2	549.9	554.7	618.2	68.3	40	Yes	HTA3C12-40FM
	12xD	C	493.2	549.9	554.7	618.2	68.3	40	No	HTA3C12-40CM
	12xD	D	493.2	549.9	554.7	618.2	68.3	40	Yes	HTA3D12-40FM
	12xD	D	493.2	549.9	554.7	618.2	68.3	40	No	HTA3D12-40CM
	15xD	A	616.5	673.2	678.0	741.5	68.3	40	Yes	HTA3A15-40FM
	15xD	A	616.5	673.2	678.0	741.5	68.3	40	No	HTA3A15-40CM
	15xD	B	616.5	673.2	678.0	741.5	68.3	40	Yes	HTA3B15-40FM
	15xD	B	616.5	673.2	678.0	741.5	68.3	40	No	HTA3B15-40CM
	15xD	C	616.5	673.2	678.0	741.5	68.3	40	Yes	HTA3C15-40FM
	15xD	C	616.5	673.2	678.0	741.5	68.3	40	No	HTA3C15-40CM
	15xD	D	616.5	673.2	678.0	741.5	68.3	40	Yes	HTA3D15-40FM
	15xD	D	616.5	673.2	678.0	741.5	68.3	40	No	HTA3D15-40CM

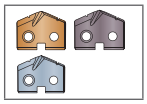
Connection Accessories

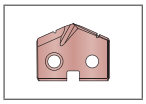
 Insert Screws	 Nylon Locking Screws	 Insert Driver	Admissible Tightening Torque*
7514-IP20-1	7514N-IP20-1	8IP-20	121.3 in-llbs (1370 N-cm)

*Tightening torques are calculated with a friction coefficient of μ = 0.14 and develop 90% of ultimate yield strength

⚠ WARNING Refer to Speed and Feed charts for recommended adjustments to speeds and feeds. Refer to page A25: 64 for deep hole drilling guidelines in this section of the catalog. Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures. Factory technical assistance is available for your specific applications through our Application Engineering department.
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A25: 58 - 61 
Key on A25: 1

A25: 46 - 49 

A25: 50 - 53 

ⓘ = Imperial (in)
ⓜ = Metric (mm)
Screws sold in multiples of 10

Recommended Drilling Data | Imperial (inch)

T-A Pro™

	Material	Hardness (BHN)	Insert Grade	Speed (SFM)	Feed Rate (IPR) by Diameter 3/8" - 1/2"	33/64" - 11/16"	45/64" - 15/16"	31/32" - 1-3/8"	1-13/32" - 1-7/8"
P	**Free Machining Steel** 1118, 1215, 12L14, etc.	100 - 150	P	475	0.007	0.010	0.013	0.016	0.020
		150 - 200	P	440	0.007	0.010	0.013	0.016	0.020
		200 - 250	P	410	0.006	0.010	0.013	0.016	0.020
	Low Carbon Steel 1010, 1020, 1025, 1522, 1144, etc.	85 - 125	P	425	0.006	0.009	0.012	0.015	0.019
		125 - 175	P	410	0.006	0.009	0.012	0.015	0.019
		175 - 225	P	385	0.005	0.008	0.010	0.014	0.018
		225 - 275	P	355	0.005	0.008	0.010	0.014	0.018
	Medium Carbon Steel 1030, 1040, 1050, 1527, 1140, 1151, etc.	125 - 175	P	410	0.006	0.009	0.012	0.015	0.019
		175 - 225	P	385	0.005	0.008	0.010	0.014	0.018
		225 - 275	P	355	0.005	0.008	0.010	0.014	0.018
		275 - 325	P	330	0.004	0.007	0.009	0.012	0.016
	Alloy Steel 4140, 5140, 8640, etc.	125 - 175	P	420	0.006	0.009	0.012	0.014	0.017
		175 - 225	P	390	0.005	0.008	0.011	0.014	0.017
		225 - 275	P	360	0.005	0.008	0.011	0.014	0.017
		275 - 325	P	340	0.004	0.007	0.010	0.012	0.015
		325 - 375	P	310	0.003	0.007	0.010	0.012	0.015
	High Strength Alloy 4340, 4330V, 300M, etc.	225 - 300	P	350	0.004	0.007	0.010	0.013	0.015
		300 - 350	P	325	0.003	0.006	0.009	0.012	0.014
		350 - 400	P	300	0.003	0.006	0.008	0.011	0.013
	Structural Steel A36, A285, A516, etc.	100 - 150	P	400	0.006	0.010	0.012	0.014	0.018
		150 - 250	P	340	0.005	0.009	0.010	0.012	0.016
		250 - 350	P	280	0.004	0.008	0.009	0.010	0.014
	Tool Steel H-13, H-21, A-4, S-3, etc.	150 - 200	P	220	0.004	0.006	0.008	0.010	0.012
		200 - 250	P	180	0.004	0.006	0.008	0.010	0.012
S	**High Temp Alloy** Hastelloy B, Inconel 600, etc.	140 - 220	M	60	0.003	0.007	0.008	0.010	0.012
		220 - 310	M	45	0.003	0.006	0.007	0.008	0.010
	Titanium Alloy	140 - 220	M	70	0.003	0.007	0.008	0.010	0.012
		220 - 310	M	55	0.003	0.006	0.007	0.008	0.010
	Aerospace Alloy S82	185 - 275	M	150	0.005	0.008	0.009	0.010	0.014
		275 - 350	M	120	0.004	0.007	0.008	0.008	0.012

7xD and 10xD Adjustment Example (0.80 Adjustment)

Data • Adjustment Value	Speed/Feed (7xD)
200 SFM • 0.80	= 160 SFM
0.008 IPR • 0.80	= 0.0064 IPR

12xD and 15xD Adjustment Example (0.70 Adjustment)

Speed • Adjustment Value	Speed/Feed (12xD)
200 SFM • 0.70	= 140 SFM
0.008 IPR • 0.70	= 0.0056 IPR

Coolant Recommendations

Series	STUB, 3xD, 5xD Pressure PSI	STUB, 3xD, 5xD Flow Rate GPM	7xD, 10xD Pressure PSI	7xD, 10xD Flow Rate GPM	12xD, 15xD Pressure PSI	12xD, 15xD Flow Rate GPM
Z	450	4	550	6	650	8
0	350	6	450	9	550	12
1	300	8	400	10	500	12
2	250	10	350	13	450	16
3	200	12	300	14	400	18

⚠ WARNING **Tool failure can cause serious injury. To prevent:**
- When using holders without support bushing, use a short T-A Pro holder to establish an initial hole that is a minimum of 2 diameters deep.
- Do not rotate tool holders more than 50 RPM unless it is engaged with the workpiece or fixture.

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IMPORTANT: The speeds and feeds listed above are a general starting point for all applications. Refer to the coolant recommendation chart for coolant requirements to run at the recommended speeds and feeds. Factory technical assistance is available through our Application Engineering department. For 7xD, 10xD, 12xD, and 15xD holder lengths, see adjustment example above.

Recommended Drilling Data | Imperial (inch)

T-A Pro™

	Material	Hardness (BHN)	Insert Grade	Speed (SFM)	Feed Rate (IPR) by Diameter				
					3/8" - 1/2"	33/64" - 11/16"	45/64" - 15/16"	31/32" - 1-3/8"	1-13/32" - 1-7/8"
M	**Stainless Steel 400 Series**	185 - 275	M	280	0.005	0.010	0.011	0.012	0.013
	416, 420, etc.	275 - 350	M	230	0.004	0.009	0.010	0.011	0.012
	Stainless Steel 300 Series	135 - 185	M	280	0.005	0.007	0.008	0.009	0.012
	304, 316, 17-4PH, etc.	185 - 275	M	230	0.004	0.006	0.007	0.008	0.011
	PH Stainless	275-350	P	160	0.003	0.004	0.006	0.008	0.010
	17-4, 13-8, 15-5	350-425	P	120	0.003	0.004	0.006	0.008	0.010
	Super Duplex Stainless Steel	135 - 185	M	110	0.005	0.005	0.006	0.006	0.007
		185 - 275	M	80	0.004	0.005	0.005	0.006	0.006
H	**Wear Plate**	400	P	70	0.003	0.006	0.008	0.009	0.012
	Hardox, AR400, T-1, etc.	500	P	45	0.002	0.005	0.007	0.008	0.010
		600	N/A	–	–	–	–	–	–
	Hardened Steel	300 - 400	P	95	0.003	0.006	0.008	0.009	0.012
		400 - 500	P	45	0.002	0.005	0.007	0.008	0.010
K	**SG / Nodular Cast Iron**	120 - 150	K	600	0.007	0.012	0.016	0.020	0.024
		150 - 200	K	550	0.006	0.011	0.014	0.018	0.022
		200 - 220	K	500	0.006	0.009	0.012	0.016	0.018
		220 - 260	K	450	0.005	0.007	0.009	0.012	0.014
		260 - 320	K	400	0.004	0.006	0.007	0.009	0.012
N	**Cast Aluminum**	30	N	1100	0.008	0.013	0.016	0.020	0.022
		180	N	600	0.008	0.013	0.016	0.018	0.022
	Wrought Aluminum	30	N	1100	0.009	0.013	0.017	0.020	0.024
		180	N	600	0.005	0.007	0.010	0.013	0.016
	Aluminum Bronze	100 - 200	N	500	0.006	0.011	0.014	0.018	0.022
		200 - 250	N	300	0.005	0.007	0.009	0.012	0.014
	Brass	100	N	445	0.007	0.012	0.016	0.020	0.024
	Copper	60	N	165	0.002	0.003	0.006	0.008	0.010

7xD and 10xD Adjustment Example (0.80 Adjustment)

Data • Adjustment Value	Speed/Feed (7xD)
200 SFM • 0.80	= 160 SFM
0.008 IPR • 0.80	= 0.0064 IPR

12xD and 15xD Adjustment Example (0.70 Adjustment)

Speed • Adjustment Value	Speed/Feed (12xD)
200 SFM • 0.70	= 140 SFM
0.008 IPR • 0.70	= 0.0056 IPR

Coolant Recommendations

Series	STUB, 3xD, 5xD		7xD, 10xD		12xD, 15xD	
	Pressure PSI	Flow Rate GPM	Pressure PSI	Flow Rate GPM	Pressure PSI	Flow Rate GPM
Z	450	4	550	6	650	8
0	350	6	450	9	550	12
1	300	8	400	10	500	12
2	250	10	350	13	450	16
3	200	12	300	14	400	18

⚠ WARNING **Tool failure can cause serious injury. To prevent:**

- When using holders without support bushing, use a short T-A Pro holder to establish an initial hole that is a minimum of 2 diameters deep.
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IMPORTANT: The speeds and feeds listed above are a general starting point for all applications. Refer to the coolant recommendation chart for coolant requirements to run at the recommended speeds and feeds. Factory technical assistance is available through our Application Engineering department. For 7xD, 10xD, 12xD, and 15xD holder lengths, see adjustment example above.

Recommended Drilling Data | Metric (mm)

T-A Pro™

	Material	Hardness (BHN)	Insert Grade	Speed (M/min)	Feed Rate (mm/rev) by Diameter 11.10mm - 12.69mm	12.70mm - 17.64mm	17.65mm - 24.37mm	24.38mm - 35.04mm	35.05mm - 47.80mm
P	**Free Machining Steel** 1118, 1215, 12L14, etc.	100 - 150	P	145	0.180	0.250	0.330	0.410	0.510
		150 - 200	P	135	0.180	0.250	0.330	0.410	0.510
		200 - 250	P	125	0.150	0.250	0.330	0.410	0.510
	Low Carbon Steel 1010, 1020, 1025, 1522, 1144, etc.	85 - 125	P	130	0.150	0.230	0.300	0.380	0.480
		125 - 175	P	125	0.150	0.230	0.300	0.380	0.480
		175 - 225	P	115	0.130	0.200	0.250	0.360	0.460
		225 - 275	P	110	0.130	0.200	0.250	0.360	0.460
	Medium Carbon Steel 1030, 1040, 1050, 1527, 1140, 1151, etc.	125 - 175	P	125	0.150	0.230	0.300	0.380	0.480
		175 - 225	P	115	0.130	0.200	0.250	0.360	0.460
		225 - 275	P	110	0.130	0.200	0.250	0.360	0.460
		275 - 325	P	100	0.100	0.180	0.230	0.300	0.410
	Alloy Steel 4140, 5140, 8640, etc.	125 - 175	P	130	0.150	0.230	0.300	0.360	0.430
		175 - 225	P	120	0.130	0.200	0.280	0.360	0.430
		225 - 275	P	110	0.130	0.200	0.280	0.360	0.430
		275 - 325	P	105	0.100	0.180	0.250	0.300	0.380
		325 - 375	P	95	0.080	0.180	0.250	0.300	0.380
	High Strength Alloy 4340, 4330V, 300M, etc.	225 - 300	P	105	0.100	0.180	0.250	0.330	0.380
		300 - 350	P	100	0.080	0.150	0.230	0.300	0.360
		350 - 400	P	90	0.080	0.150	0.200	0.280	0.330
	Structural Steel A36, A285, A516, etc.	100 - 150	P	120	0.150	0.250	0.300	0.360	0.460
		150 - 250	P	105	0.130	0.230	0.250	0.300	0.410
		250 - 350	P	85	0.100	0.200	0.230	0.250	0.360
	Tool Steel H-13, H-21, A-4, S-3, etc.	150 - 200	P	65	0.100	0.150	0.200	0.250	0.300
		200 - 250	P	55	0.100	0.150	0.200	0.250	0.300
S	**High Temp Alloy** Hastelloy B, Inconel 600, etc.	140 - 220	M	20	0.080	0.180	0.200	0.250	0.300
		220 - 310	M	15	0.080	0.150	0.180	0.200	0.250
	Titanium Alloy	140 - 220	M	20	0.080	0.180	0.200	0.250	0.300
		220 - 310	M	15	0.080	0.150	0.180	0.200	0.250
	Aerospace Alloy S82	185 - 275	M	45	0.130	0.200	0.230	0.250	0.360
		275 - 350	M	35	0.100	0.180	0.200	0.200	0.300

7xD and 10xD Adjustment Example (0.80 Adjustment)

Data • Adjustment Value	Speed/Feed (7xD)
100 M/min • 0.80	= 80 M/min
0.2 mm/rev • 0.80	= 0.16 mm/rev

12xD and 15xD Adjustment Example (0.70 Adjustment)

Speed • Adjustment Value	Speed/Feed (12xD)
100 M/min • 0.70	= 70 M/min
0.2 mm/rev • 0.70	= 0.14 mm/rev

Coolant Recommendations

Series	STUB, 3xD, 5xD Pressure BAR	STUB, 3xD, 5xD Flow Rate LPM	7xD, 10xD Pressure BAR	7xD, 10xD Flow Rate LPM	12xD, 15xD Pressure BAR	12xD, 15xD Flow Rate LPM
Z	31	15	34	22	45	30
0	24	22	31	34	34	45
1	21	30	27	38	34	45
2	17	38	24	49	31	60
3	14	45	21	53	27	68

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Recommended Drilling Data | Metric (mm)

T-A Pro™

	Material	Hardness (BHN)	Insert Grade	Speed (M/min)	Feed Rate (mm/rev) by Diameter 11.10mm - 12.69mm	12.70mm - 17.64mm	17.65mm - 24.37mm	24.38mm - 35.04mm	35.05mm - 47.80mm
M	**Stainless Steel 400 Series**	185 - 275	M	85	0.130	0.250	0.280	0.300	0.330
	416, 420, etc.	275 - 350	M	70	0.100	0.230	0.250	0.280	0.300
	Stainless Steel 300 Series	135 - 185	M	85	0.130	0.180	0.200	0.230	0.300
	304, 316, 17-4PH, etc.	185 - 275	M	70	0.100	0.150	0.180	0.200	0.280
	PH Stainless	275-350	P	50	0.080	0.100	0.150	0.200	0.250
	17-4, 13-8, 15-5	350-425	P	35	0.080	0.100	0.150	0.200	0.250
	Super Duplex Stainless Steel	135 - 185	M	35	0.130	0.130	0.150	0.150	0.180
		185 - 275	M	25	0.100	0.130	0.130	0.150	0.150
H	**Wear Plate**	400	P	20	0.080	0.150	0.200	0.230	0.300
	Hardox, AR400, T-1, etc.	500	P	15	0.050	0.130	0.180	0.200	0.250
		600	N/A	–	–	–	–	–	–
	Hardened Steel	300 - 400	P	30	0.080	0.150	0.200	0.230	0.300
		400 - 500	P	15	0.050	0.130	0.180	0.200	0.250
K	**SG / Nodular Cast Iron**	120 - 150	K	185	0.180	0.300	0.410	0.510	0.610
		150 - 200	K	170	0.150	0.280	0.360	0.460	0.560
		200 - 220	K	150	0.150	0.230	0.300	0.410	0.460
		220 - 260	K	135	0.130	0.180	0.230	0.300	0.360
		260 - 320	K	120	0.100	0.150	0.180	0.230	0.300
N	**Cast Aluminum**	30	N	335	0.200	0.330	0.410	0.510	0.560
		180	N	185	0.200	0.330	0.410	0.460	0.560
	Wrought Aluminum	30	N	335	0.230	0.330	0.430	0.510	0.610
		180	N	185	0.130	0.180	0.250	0.330	0.410
	Aluminum Bronze	100 - 200	N	150	0.150	0.280	0.360	0.460	0.560
		200 - 250	N	90	0.130	0.180	0.230	0.300	0.360
	Brass	100	N	135	0.180	0.300	0.410	0.510	0.610
	Copper	60	N	50	0.050	0.080	0.150	0.200	0.250

7xD and 10xD Adjustment Example (0.80 Adjustment)

Data • Adjustment Value	Speed/Feed (7xD)
100 M/min • 0.80	= 80 M/min
0.2 mm/rev • 0.80	= 0.16 mm/rev

12xD and 15xD Adjustment Example (0.70 Adjustment)

Speed • Adjustment Value	Speed/Feed (12xD)
100 M/min • 0.70	= 70 M/min
0.2 mm/rev • 0.70	= 0.14 mm/rev

Coolant Recommendations

Series	STUB, 3xD, 5xD Pressure BAR	STUB, 3xD, 5xD Flow Rate LPM	7xD, 10xD Pressure BAR	7xD, 10xD Flow Rate LPM	12xD, 15xD Pressure BAR	12xD, 15xD Flow Rate LPM
Z	31	15	34	22	45	30
0	24	22	31	34	34	45
1	21	30	27	38	34	45
2	17	38	24	49	31	60
3	14	45	21	53	27	68

⚠ WARNING **Tool failure can cause serious injury. To prevent:**

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Tap Drill Information and Formulas | Imperial (inch)

American - Unified Inch Screw Thread

Tap Size	Tap Drill Size	Decimal Equivalent	* Theo % Thread	Probable Mean Oversize	Probable Hole Size	** Probable % Thread
1/2 - 20	29/64	0.4531	72%	0.003	0.4561	68%
9/16 - 12	12.0mm	0.4724	72%	0.003	0.4754	69%
	31/64	0.4844	83%	0.003	0.4874	80%
9/16 - 18	1/2	0.5000	87%	0.003	0.5030	82%
	13.0mm	0.5118	70%	0.003	0.5148	66%
	31/64	0.5156	65%	0.003	0.5186	61%
5/8 - 11	17/32	0.5313	79%	0.003	0.5343	77%
5/8 - 12	35/64	0.5469	72%	0.003	0.5499	69%
5/8 - 18	9/16	0.5625	87%	0.003	0.5655	82%
	14.5mm	0.5709	75%	0.003	0.5739	71%
	37/64	0.5781	65%	0.003	0.5811	61%
11/16 - 12	39/64	0.6094	72%	0.003	0.6124	69%
3/4 - 10	41/64	0.6406	84%	0.003	0.6436	82%
	16.5mm	0.6496	77%	0.003	0.6526	75%
	21/32	0.6563	72%	0.003	0.6593	70%
3/4 - 12	43/64	0.6719	72%	0.003	0.6749	69%
3/4 - 16	11/16	0.6875	77%	0.003	0.6905	73%
	17.5mm	0.6890	75%	0.003	0.6920	71%
7/8 - 9	49/64	0.7656	76%	0.003	0.7686	74%
	25/32	0.7813	65%	0.003	0.7843	63%
7/8 - 14	51/64	0.7969	84%	0.003	0.7999	81%
	13/16	0.8125	67%	0.003	0.8155	64%
15/16 - 12	55/64	0.8594	72%	0.003	0.8624	69%
15/16 - 20	57/64	0.8906	72%	0.003	0.8936	68%
1 - 8	22.0mm	0.8661	82%	0.003	0.8691	81%
	7/8	0.8750	77%	0.003	0.8780	75%
	57/64	0.8906	67%	0.003	0.8936	65%
1 - 12	29/32	0.9063	87%	0.003	0.9093	84%
	59/64	0.9219	72%	0.003	0.9249	69%
1 - 14	15/16	0.9375	67%	0.003	0.9405	64%
1-1/8 - 12	1-1/32	1.0313	87%	0.003	1.0343	84%
	1-3/64	1.0469	72%	0.003	1.0499	69%
1-1/4 - 7	1-7/64	1.1094	76%	0.003	1.1124	74%

Taper Pipe Thread (NPT)

Tap Size	Tap Drill Size	Decimal Equivalent	* Theo % Thread	Probable Mean Oversize	Probable Hole Size	** Probable % Thread
1/4 - 18	7/16	0.4375	–	0.003	0.4405	–
3/8 - 18	9/16	0.5625	–	0.003	0.5655	–
1/2 - 14	45/64	0.7031	–	0.003	0.7061	–
3/4 - 14	29/32	0.9063	–	0.003	0.9093	–

* Based on nominal tap drill diameter
** Based on .003" probable mean oversize

To calculate the percent of full thread for a given hole diameter:

$$\text{\% Thread} = \text{\# of threads per inch} \bullet \frac{\text{(Basic major diameter of thread - Drill hole size)}}{.0130}$$

Formulas

1. **RPM = (3.82 • SFM) / DIA**
   where:
   RPM = revolutions per minute (rev/min)
   SFM = speed (ft/min)
   DIA = diameter of drill (inch)

2. **IPM = RPM • IPR**
   where:
   IPM = inches per minute (in/min)
   RPM = revolutions per minute (rev/min)
   IPR = feed rate (in/rev)

3. **SFM = RPM • 0.262 • DIA**
   where:
   SFM = speed (ft/min)
   RPM = revolutions per minute (rev/min)
   DIA = diameter of drill (inch)

4. **Thrust = 153,700 • IPR • DIA • Km**
   where:
   Thrust = axial thrust (lbs)
   IPR = feed rate (in/rev)
   DIA = diameter of drill (inch)
   Km = specific cutting energy (lbs/in^2)

5. **Tool Power = .6991 • IPR • RPM • Km • DIA^2**
   where:
   Tool Power = tool power (HP)
   IPR = feed rate (in/rev)
   RPM = revolutions per minute (rev/min)
   Km = specific cutting energy (lbs/in^2)
   DIA = diameter of drill (inch)

Material Constants

Type of Material	Hardness	Km (lbs/in^2)
Plain Carbon and Alloy Steel	85 - 200 BHN	0.79
	200 - 275 BHN	0.94
	275 - 375 BHN	1.00
	375 - 425 BHN	1.15
High Temperature Alloys	–	1.44
Titanium Alloy	–	0.72
Stainless Steels	135 - 275 BHN	0.94
	30 - 45 RC	1.08
Cast Iron	100 - 200 BHN	0.50
	200 - 300 BHN	1.08
Copper Alloy	20 - 80 RB	0.43
	80 - 100 RB	0.72
Aluminum Alloy	–	0.22
Magnesium Alloy	–	0.16

Notes

- The above tap drill information represents probable thread percentages for the standard tap drills stocked at Allied Machine. Special insert diameters may be required in order to meet a user specific percentage of thread requirement.
- The .003 probable mean oversize hole condition is based on optimum cutting conditions. Probable percent of full thread may vary based on less ideal cutting conditions.
- The table and equations on this page are found in the *Machinery's Handbook*. Permission to simplify and print the equations is granted by the Editor of the *Machinery's Handbook*.

Tap Drill Information and Formulas | Metric (mm)

Tap Size	Tap Drill Size	Decimal Equivalent (inch)	* Theo % Thread	Probable Mean Oversize	Probable Hole Size	** Probable % Thread
12 X 1.25	27/64	0.4219	79%	0.075mm	10.79mm	74%
	10.8mm	0.4252	74%	0.075mm	10.88mm	69%
14 X 2.0	15/32	0.4688	81%	0.075mm	11.98mm	78%
	12.0mm	0.4724	77%	0.075mm	12.08mm	74%
14 X 1.5	12.5mm	0.4921	77%	0.075mm	12.58mm	73%
16 X 2.0	14.0mm	0.5512	77%	0.075mm	14.08mm	74%
16 X 1.5	14.5mm	0.5709	77%	0.075mm	14.58mm	73%
	37/64	0.5781	68%	0.075mm	14.76mm	64%
18 X 2.5	15.5 mm	0.6102	77%	0.075mm	15.58mm	75%
18 X 1.5	16.5mm	0.6496	77%	0.075mm	16.58mm	73%
	21/32	0.6563	68%	0.075mm	16.75mm	64%
20 X 2.5	11/16	0.6875	78%	0.075mm	17.54mm	76%
	17.5 mm	0.6890	77%	0.075mm	17.58mm	74%
20 X 1.5	18.5mm	0.7283	77%	0.075mm	18.58mm	73%
	47/64	0.7344	69%	0.075mm	18.66mm	65%
22 X 2.5	49/64	0.7656	79%	0.075mm	19.52mm	76%
	19.5 mm	0.7677	77%	0.075mm	19.58mm	75%
22 X 1.5	20.5mm	0.8071	77%	0.075mm	20.58mm	73%
	13/16	0.8125	70%	0.075mm	20.71mm	66%
24 X 3	13/16	0.8125	86%	0.075mm	20.71mm	84%
	21.0 mm	0.8268	76%	0.075mm	21.08mm	75%
24 X 2	22.0mm	0.8661	77%	0.075mm	22.08mm	74%
	7/8	0.8750	68%	0.075mm	22.30mm	65%
27 X 3	24.0mm	0.9449	77%	0.075mm	24.08mm	75%

Formulas

1. **RPM = (318.47 • M/min) / DIA**

where:

RPM	= revolutions per minute (rev/min)
M/min	= speed (M/min)
DIA	= diameter of drill (mm)

2. **mm/min = RPM • mm/rev**

where:

mm/min	= mm per minute (mm/min)
RPM	= revolutions per minute (rev/min)
mm/rev	= feed rate (mm/rev)

3. **M/min = RPM • 0.003 • DIA**

where:

M/min	= speed (M/min)
RPM	= revolutions per minute (rev/min)
DIA	= diameter of drill (mm)

4. **Thrust = 154 • (mm/rev) • DIA • K_m**

where:

Thrust	= axial thrust (N)
mm/rev	= feed rate (mm/rev)
DIA	= diameter of drill (mm)
K_m	= specific cutting energy (kPa)

5. **Tool Power = ((mm/rev) • RPM • K_m • DIA^2) / 218604.8**

where:

Tool Power	= tool power (HP)
mm/rev	= feed rate (mm/rev)
RPM	= revolutions per minute (rev/min)
K_m	= specific cutting energy (kPa)
DIA	= diameter of drill (mm)

BSP and ISO 7-1

Tap Size	Tap Drill Size	Decimal Equivalent	* Theo % Thread	Probable Mean Oversize	Probable Hole Size	** Probable % Thread
1/4-19	7/16	0.4375	–	0.075mm	11.19 mm	–
3/8-19	37/64	0.5781	–	0.075mm	14.76 mm	–
1/2-14	23/32	0.7188	–	0.075mm	18.33 mm	–
3/4-14	15/16	0.9375	–	0.075mm	23.89 mm	–

* Based on nominal tap drill diameter
** Based on 0.075mm probable mean oversize

To calculate the percent of full thread for a given hole diameter:

$$\% \text{ Thread} = \frac{76.93}{\text{Pitch (mm)}} \bullet (\text{Basic major diameter - Drill hole size})$$

Material Constants

Type of Material	Hardness	Km (kPa)
Plain Carbon and Alloy Steel	85 - 200 BHN	5.45
	200 - 275 BHN	6.48
	275 - 375 BHN	6.89
	375 - 425 BHN	7.93
High Temperature Alloys	–	9.93
Titanium Alloy	–	4.96
Stainless Steels	135 - 275 BHN	6.48
	30 - 45 RC	7.45
Cast Iron	100 - 200 BHN	3.45
	200 - 300 BHN	7.45
Copper Alloy	20 - 80 RB	2.96
	80 - 100 RB	4.96
Aluminum Alloy	–	1.52
Magnesium Alloy	–	1.10

Notes

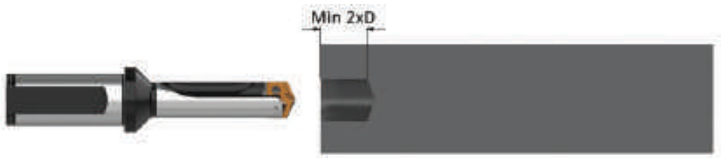
- The above tap drill information represents probable thread percentages for the standard tap drills stocked at Allied Machine. Special insert diameters may be required in order to meet a user specific percentage of thread requirement.
- The .075mm probable mean oversize hole condition is based on optimum cutting conditions. Probable percent of full thread may vary based on less ideal cutting conditions.
- The table and equations on this page are found in the *Machinery's Handbook*. Permission to simplify and print the equations is granted by the Editor of the *Machinery's Handbook*.

Deep Hole Drilling Guidelines

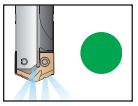
T-A Pro | 10xD, 12xD, and 15xD Holders

1. Pilot Hole
100 % RPM
100% IPR (mm/rev)

Establish the pilot hole using the same diameter short drill to a depth of 2xD minimum.
Utilize a pilot drill with the same or larger included point angle.



Coolant ON

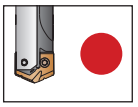


2. Feed-in
50 RPM max
12 IPM (300 mm/min)

Feed the longer drill within 1/16" (1.5mm) short of the established pilot hole bottom at a **maximum of 50 RPM** and 12 IPM (300 mm/min) feed rate.



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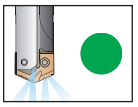


3. Deep Hole Transition Drilling
50 % RPM
75% IPR (mm/rev)

Drill additional 1xD past the bottom of the pilot hole at 50% reduction of recommended speed and 25% reduction of recommended feed.
Minimum of one second dwell is required to meet full speed before feeding.



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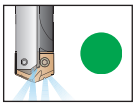


4. Deep Hole Drilling - Blind
100% RPM
100% IPR (mm/rev)

Drill to full depth at recommended speed and feed for longer drill according to Allied speed and feed charts.
No peck cycle recommended.



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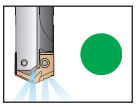


5. Deep Hole Drilling - at Breakout
50% RPM
75% IPR (mm/rev)

For through holes only:
Reduce speed by 50% and feed by 25% prior to breakout.
Do not break out more than 1/8" (3mm) past the full diameter of the drill.



Coolant ON

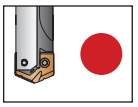


6. Drill Retract
50 RPM max

Reduce speed to a **maximum of 50 RPM** before retracting from the hole.



Coolant OFF



⚠ WARNING **Tool failure can cause serious injury. To prevent:**
- When using holders without support bushing, use a short T-A Pro holder to establish an initial hole that is a minimum of 2 diameters deep.
- Do not rotate tool holders more than 50 RPM unless it is engaged with the workpiece or fixture.

Visit **www.alliedmachine.com/DeepHoleGuidelines** for the most up-to-date information and procedures.
Factory technical assistance is available for your specific applications through our Application Engineering department. *ext:* **7611** | *email:* **appeng@alliedmachine.com**

Troubleshooting Guide

	Potential Problem																				
	Accelerated corner wear	Barber pole	Bell mouth hole	Insert chipping	Blue chips	Build Up Edge (BUE)	Chatter	Chip packing	Chipping of point	Damaged or broken tools	Excessive margin wear	High flank wear	Hole lead off	Hole out of position	Hole out of round	Oversize hole	Poor hole finish	Poor tool life	Power spikes - Load meter	Retract spiral	
Setup Condition	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	**Possible Solutions**
Worn or misaligned spindle (lathe, screw machine, chucker)	1		3				7		9	10	11		13			16	17			20	• Align spindle and turret or tailstock. • Repair spindle.
Use of low rigidity machine tools		2	3	4			7		9	10			13	14						20	• Reduce penetration rate to fall within the physical limits of the machine or setup (**NOTICE:** Do not reduce feed below threshold of good chip formation).
Poor work piece support		2		4			7			10	11				15		17			20	• Provide additional support for the work piece. • Reduce penetration rate to fall within the physical limits of the machine or setup (**NOTICE:** Do not reduce feed below threshold of good chip formation).
Flood coolant, low coolant pressure, or low coolant volume	1				5	6		8		10		12				16	17	18	19		• Run coolant through tool holder when drilling greater than 1xD. • Increase coolant pressure and volume through the tool holder. • Reduce penetration rate to fall within the coolant limitations (**NOTICE:** Do not reduce feed below threshold of good chip formation). • Add a peck cycle to help clear chips.
Interrupted cuts. Entry or exit surfaces that are not perpendicular to the spindle (draft angles, parting lines, curved or stepped surfaces, cross holes, and cast or forged surfaces)				4			7		9	10	11		13	14	15	16	17	18			• Pre-mill (spot face) entry or exit surface to remove interruption. • Decrease feed as much as 50% through entry or exit interruption. • Use short holders in low impact entry cuts.
Material harder than expected or running tools beyond recommended speed	1				5	6				10		12						18			• Reduce speed. • Increase coolant pressure and volume. • Improve coolant condition by use of quality products and regular maintenance.
Poor material micro-structure or foreign particles (forgings and castings that have not been normalized or annealed, poorly prepared steel, flame cut parts, and sand casting)				4		6				10		12	13					18			• Compare performance of other tools for similar wear problems, which may indicate poor micro-structure. Anneal or normalize parts to improve micro-structure for machining. • Reduce feeds (**NOTICE:** Do not reduce feed below threshold of good chip formation).
Poor chip control								8		10	11		13			16	17	18	19		• Increase feed to recommended levels. Contact Allied Application Engineering group for technical recommendations. • Increase coolant pressure and volume. • Improve coolant condition by use of quality products and regular maintenance.
Spot drilled holes with included angle less than that matching T-A Pro or cored holes	1			4			7						13					18			• Spot hole with short tool of same or greater included angle as T-A Pro drill insert. • Reduce feed (**NOTICE:** Do not reduce feed below threshold of good chip formation). If possible, drill from solid.

Notes

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Guaranteed Test / Demo Application Form

Distributor PO #	

The following must be filled out completely before your test will be considered

Distributor Information

Company Name: _____

Contact: _____

Account Number: _____

Phone: _____

Email: _____

End User Information

Company Name: _____

Contact: _____

Industry: _____

Phone: _____

Email: _____

Current Process List all tooling, coatings, substrates, speeds and feeds, tool life, and any problems you are experiencing

_____

_____

Test Objective List what would make this a successful test (i.e. penetration rate, finish, tool life, hole size, etc.)

_____

_____

Application Information

Hole Diameter: _____ in/mm

Tolerance: _____

Material: _____ (4150 / A36 / Cast Iron / etc.)

Pre-existing Diameter: _____ in/mm

Depth of Cut: _____ in/mm

Hardness: _____ (BHN / Rc)

Required Finish: _____ RMS

State: _____ (Casting / Hot rolled / Forging)

Machine Information

Machine Type: _____ (Lathe / Screw machine / Machine center / etc.)

Builder: _____ (Haas, Mori Seiki, etc.)

Model #: _____

Shank Required: _____ (CAT50 / Morse taper, etc.)

Power: _____ HP/KW

Rigidity:
- ☐ Excellent
- ☐ Good
- ☐ Poor

Orientation:
- ☐ Vertical
- ☐ Horizontal

Tool Rotating:
- ☐ Yes
- ☐ No

Thrust: _____ lbs/N

Coolant Information

Coolant Delivery: _____ (Through tool / Flood)

Coolant Pressure: _____ PSI / bar

Coolant Type: _____ (Air mist, oil, synthetic, water soluble, etc.)

Coolant Volume: _____ GPM / LPM

Requested Tooling

QTY	Item Number

QTY	Item Number

ALLIED MACHINE & ENGINEERING

Allied Machine & Engineering
120 Deeds Drive
Dover, OH 44622

Telephone: (330) 343-4283
Toll Free USA & Canada: (800) 321-5537
Fax: (330) 602-3400



ALLIED MACHINE & ENGINEERING

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Allied Machine's sole and exclusive obligation under this warranty is limited to, at its option, without additional charge, replacing or repairing this product or issuing a credit. For this warranty to be applied, the product must be returned freight prepaid to the plant designated by an Allied Machine representative and which, upon inspection, is determined by Allied Machine to be defective in material and workmanship.

Complete information as to operating conditions, machine, setup, and the application of cutting fluid should accompany any product returned for inspection. This warranty shall not apply to any Allied Machine products which have been subjected to misuse, abuse, improper operating conditions, improper machine setup or improper application of cutting fluid or which have been repaired or altered if such repair or alteration, in the judgement of Allied Machine, would adversely affect the performance of the product.

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Certified IQR Management System

Allied Machine & Engineering
Registered to ISO 9001
10001329

United States

Allied Machine & Engineering
120 Deeds Drive
Dover OH 44622
United States

Phone:
+1.330.343.4283

Fax:
+1.330.602.3400

Toll Free USA and Canada:
800.321.5537

Toll Free USA and Canada:
800.223.5140

Allied Machine & Engineering
485 W Third Street
Dover OH 44622
United States

Phone:
+1.330.343.4283

Fax:
+1.330.364.7666
(Engineering Dept.)

Toll Free USA and Canada:
800.321.5537

Europe

Allied Machine & Engineering Co. (Europe) Ltd.
93 Vantage Point
Pensnett Estate
Kingswinford
West Midlands
DY6 7FR England

Phone:
+44 (0) 1384.400900

Wohlhaupter GmbH
Maybachstrasse 4
Postfach 1264
72636 Frickenhausen
Germany

Phone:
+49 (0) 7022.408.0

Fax:
+49 (0) 7022.408.212

Asia

Wohlhaupter India Pvt. Ltd.
B-23, 2nd Floor
B Block Community Centre
Janakpuri, New Delhi - 110058
India

Phone:
+91 (0) 11.41827044

Your local Allied Machine representative:

ALLIED MACHINE & ENGINEERING

www.alliedmachine.com

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