

drilling  
**GEN3SYS<sup>®</sup> XT PRO**  
*replaceable insert drilling system*

Ø 0.4331" - 1.3780" (11.00 mm - 35.00 mm)



Inserts designed to achieve optimal results in different ISO material classes



Enhanced flute design for improved chip evacuation



Increased coolant flow for maximum penetration rates and increased throughput



DRILLING



BORING



REAMING



BURNISHING



THREADING



SPECIALS



**ALLIED MACHINE**  
& ENGINEERING

Allied Machine offers a wide range of drilling, boring, reaming, burnishing, and threading tools to lower your **cost per hole**.

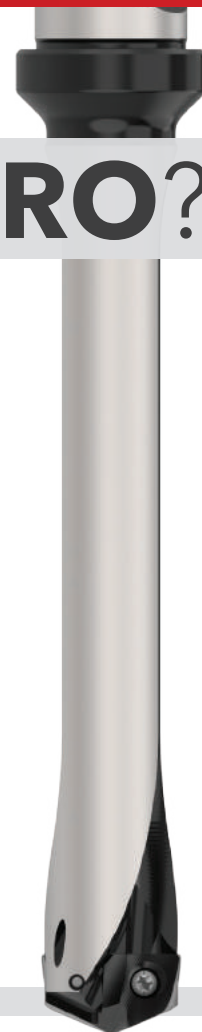
[www.alliedmachine.com](http://www.alliedmachine.com)



## WHY SHOULD YOU GO WITH THE PRO?

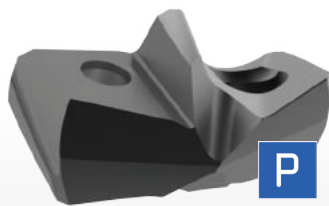
### GEN3SYS® XT Pro

- ▶ Increase your penetration rates
- ▶ ISO-specific geometries
- ▶ Improved chip evacuation
- ▶ Increased coolant flow to the cutting zone
- ▶ AM420 coating increases heat resistance
- ▶ AM440 coating increases abrasion resistance



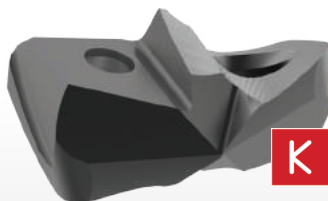
### GEN3SYS XT Pro Drill Inserts

Ø 0.4331" - 1.3780" (11.00 mm - 35.00 mm)



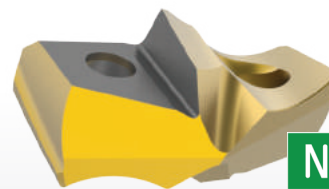
#### STEELS

- Designed to provide increased penetration rates and tool life in steel applications
- Superior geometry and edge provide excellent chip control
- Allied's multilayer AM420 coating increases heat resistance and improves tool life



#### CAST IRONS

- Uniquely designed for cast/nodular iron applications
- Geometry includes a corner radius for improved hole finish and heat dispersion
- Allied's multilayer AM440 coating provides increased abrasion resistance and tool life



#### NONFERROUS

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

#### XT Pro Inserts Connect with:



XT Pro holders



GEN3SYS holders

#### Advanced Design Capabilities

The advanced XT Pro insert combines a coating and geometry specifically designed to achieve optimal results in ISO material drilling applications. With quick connectivity to existing GEN3SYS drill insert holders, the XT Pro insert can be interchanged with previous XT inserts with ease, resulting in minimal setup times so you can immediately increase your productivity.



### Good Things Come to Those Who Don't Wait.

Don't be held back by the waiting game. Our customer who machines pump cylinders was previously having to wait on 35-to-40-day lead times.

Needing better lead times and lower costs per hole, the customer tested Allied's **GEN3SYS XT Pro drill**. Using the "K" ISO-specific cast iron insert geometry—developed with a corner radius for improved hole finish and heat dispersion—they were able to maintain speed while increasing penetration rate and tool life.

On top of the increased tool life, the GEN3SYS XT Pro had a decreased cycle time lowering the cost per hole by 18%. The success of the XT Pro in this application is just another example of why you should go with the pro.

Don't wait; *it's always the right time to give us a call and let us help you find the right solution.*

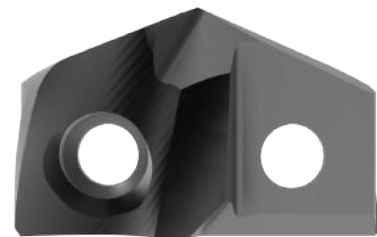


		Measure	Competitor Replaceable Insert Drill	GEN3SYS XT Pro
<b>Product:</b>	GEN3SYS XT Pro			
<b>Objective:</b>	(1) Reduce lead time (2) Decrease cost per hole	<b>RPM</b>	2600	2600
<b>Industry:</b>	General machining	<b>Speed</b>	442 SFM (134 M/min)	442 SFM (134 M/min)
<b>Part:</b>	Pump cylinder	<b>Feed Rate</b>	0.0090 IPR (0.23 mm/rev)	0.0110 IPR (0.28 mm/rev)
<b>Material:</b>	Nodular iron	<b>Penetration Rate</b>	23.40 IPM (594 mm/min)	28.60 IPM (726 mm/min)
<b>Hole Ø:</b>	0.6496" (16.50 mm)	<b>Total Part Cycle Time</b>	6.77 sec	5.44 sec
<b>Hole Depth:</b>	1.9685" (50.00 mm)	<b>Tool Life</b>	5920 holes	7840 holes
<b>Tolerance:</b>	+/- 0.0039" (0.10 mm)	GEN3SYS XT Pro offered <b>18%</b> cost per hole savings over the competitor tooling.		

▶ GEN3SYS XT Pro holder  
Item No. HXT0716S-20FM

▶ GEN3SYS XT Pro insert  
K geometry (cast iron)  
Item No. XTK16-16.50

32%  
tool life increase



The GEN3SYS XT Pro insert with ISO-specific AM440 coating provided:

- ✓ Decreased lead times
- ✓ Decreased cycle time
- ✓ Decreased cost per hole
- ✓ Increased penetration rate

Allied Machine and Engineering CS1304



**Project Profile:** Forged 8640  
**Tooling Solution:** GEN3SYS XT Pro: P (Steel) Geometry

**The Problem:**

Previously, the customer was using a competitor drill running at the following parameters:

- 415 SFM (127 M/min)
- 0.009 IPR (0.23 mm/rev)
- The tool drilled a 0.679" (17.25 mm) diameter hole to a 0.787" (20 mm) depth
- Tool life = **1,000 holes**

**The Solution:**

Allied Machine recommended the GEN3SYS XT Pro with P (Steel) geometry.

- **Insert** = XTP17-17.25

The tool ran at the following parameters:

- 415 SFM (127 M/min)
- 0.009 IPR (0.23 mm/rev)
- The tool drilled a 0.679" (17.25 mm) diameter hole to a 0.787" (20 mm) depth
- Tool life = **2,100 holes**

**The Advantage:**

The GEN3SYS XT Pro increased the tool life from 1,000 holes to 2,100 holes.

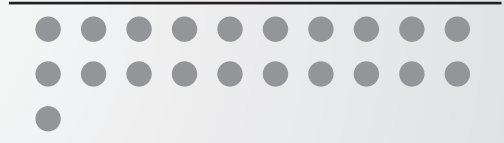
**Bottom Line:** *Doubled the tool life*

## The PROOF is in the NUMBERS

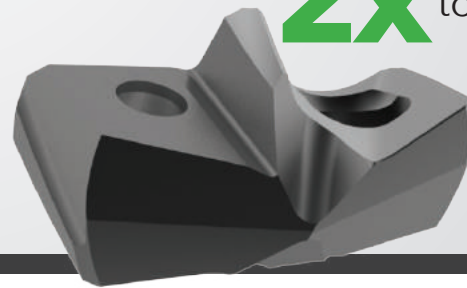
**Competitor Insert Tool Life**  
(number of holes = 1,000)



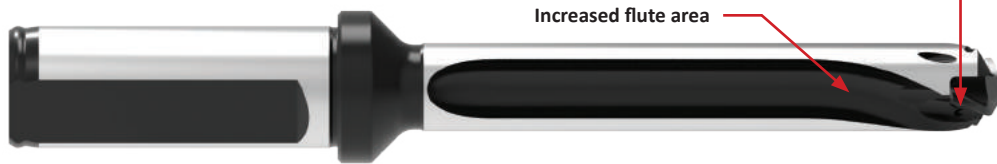
**XT Pro Insert Tool Life**  
(number of holes = 2,100)



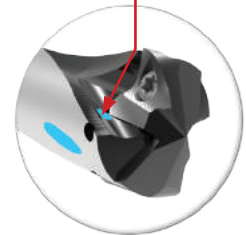
**2x** INCREASE in tool life



## GEN3SYS XT Pro Drill Holders



Additional coolant to the cutting zone



### Increase your tool life

The coolant configuration increases coolant flow and directs additional coolant to the cutting zone.

- ▶ **This increases tool life with all XT Pro inserts.**

### Drill deeper holes

The XT Pro holders are available up to 10xD.

- ▶ **This lets you take advantage of the XT Pro insert benefits in deep hole applications.**



Allied Machine offers expert engineering support. Whether you need a quote, a test, or an application solution, a highly skilled and trained engineer is standing by, ready to help.  
[www.alliedmachine.com/contactus](http://www.alliedmachine.com/contactus)

Literature Order Number: SOL-XTP

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