



Special designs can solve especially difficult situations.

If you're struggling with a particularly challenging application, don't tolerate the headache; find the solution to cure your troubles. Our customer was producing planetary gears from ductile cast iron, and the application involved an interrupted cut that caused catastrophic failures with the tooling they were testing.

First, a solid carbide drill produced a reasonable number of parts, but it would chip out on the exit and ultimately fail. Next, they tried an IC drill, but it doubled the cycle time, so that tool was not an option. The final test was a replaceable insert drill that produced anywhere from 5 to 50 parts, but after a couple insert changes, this drill would also fail.

The customer then tested the **GEN3SYS XT Pro** using the "K" geometry with AM440 coating designed specifically to overcome wear in cast iron materials. The special drill holder featured a guided body that allowed the tool to successfully cut through the interruption *without failure*. Also, the drill consistently produced 55 parts before the insert needed changed.

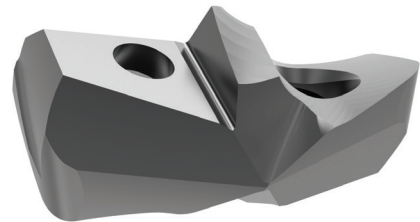
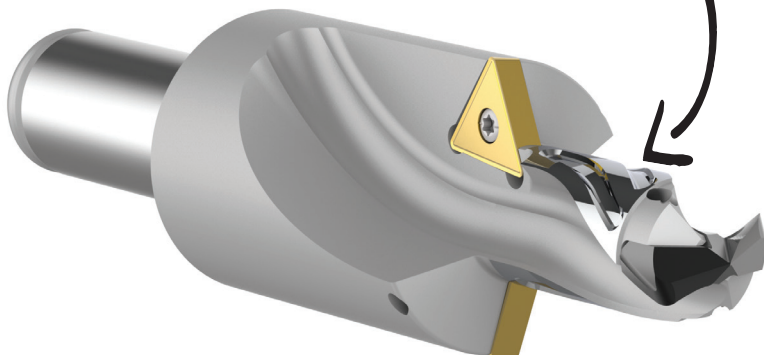
With the XT Pro and special holder, the customer finally found the reliability and consistency they had been searching for. The interrupted cut had been conquered, and tool failures were a worry of the past. **Every challenge has a solution; don't stop searching until you find the right tool for the job.**



		Measure	Competitor Replaceable Insert Drill	GEN3SYS® XT Pro w/ Special Holder
Product:	GEN3SYS® XT Pro with special holder	RPM	1386	1414
Objectives:	Achieve reliability and consistency	Speed	250 SFM (76.2 M/min)	255 SFM (77.724 M/min)
Industry:	Agriculture	Feed Rate	0.014 IPR (0.356 mm/rev)	0.013 IPR (0.330 mm/rev)
Part:	Planetary gears	Penetration Rate	19.4 IPM (492.76 mm/min)	18.4 IPM (467.36 mm/min)
Material:	Ductile cast iron	Cycle Time	5 sec	5 sec
Hole Ø:	0.689" (17.50 mm)	Tool Failure?	Yes	No
Hole Depth:	1.736" (44.10 mm)	Total Parts	5 to 50 (inconsistent)	55 (consistent)

- ▶ GEN3SYS XT Pro insert
K geometry (cast iron)
Item No. XTK17-17.50
- ▶ GEN3SYS XT special holder
Drill/chamfer style
- ▶ Chamfer inserts
Item No. TCMT-16T308

Successful interrupted cut solution



The cast iron geometry insert with AM440 coating + the special holder with guided body provided:

- ✓ Consistent tool life and production
- ✓ Eliminated tool failures
- ✓ Worry-free machining

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