



Increasing your production might be easier than you think.

If you're struggling with production issues, don't beat your head against the wall. Taking a look at your penetration rates can quickly improve your machining processes. Our customer was producing ATV suspensions from ductile iron, a material with high abrasiveness and inconsistent hardness. The application was challenging, and the customer wasn't happy with the low penetration rate they were getting from their current drill; they needed to maintain a 63 Ra μ m surface finish, and if they fed the drill higher than .005 IPR (0.127 mm/rev), it wouldn't hold the required finish.



The customer tested the **GEN3SYS XT Pro** using the "K" geometry with AM440 coating designed specifically to overcome wear in cast iron material. This coating allows you to spin the tool faster without losing the cutting edge to wear. The XT Pro demolished the customer's expectations and increased the penetration rate from 8 IPM (203.2 mm/min) to 43.7 IPM (1109.98 mm/min), all while holding the required 63 Ra μ m surface finish.

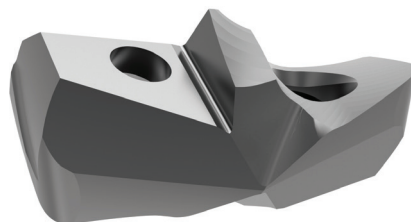
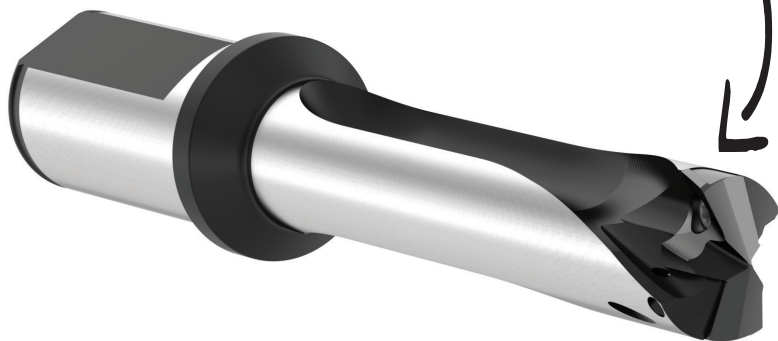
By increasing the penetration rate, the XT Pro dropped the cycle time from 23 seconds to 4 seconds. This allowed the customer to get more parts off the machine per hour, which further decreased the machine costs and ultimately increased profits. And no one's going to complain about increased profits.

With the XT Pro, the customer successfully improved the production of their part. That's all it takes; **a simple change to the right tool can make all the difference in your production.**

		Measure	Competitor High Penetration Drill	GEN3SYS® XT Pro
Product:	GEN3SYS® XT Pro	RPM	1600	1900
Objectives:	Increase penetration rate	Speed Rate	429 SFM (130.759 M/min)	509 SFM (155.143 M/min)
Industry:	Automotive	Feed Rate	0.005 IPR (0.127 mm/rev)	0.023 IPR (0.584 mm/rev)
Part:	ATV suspension	Penetration Rate	8.0 IPM (203.2 mm/min)	43.7 IPM (1109.98 mm/min)
Material:	Ductile iron	Cycle Time	23 sec	4 sec
Hole Ø:	1.024" (26.00 mm)	Tool Life	1200 linear inches (30.48 M)	1200 linear inches (30.48 M)
Hole Depth:	3.000" (76.2 mm)			

- ▶ GEN3SYS XT Pro insert
K geometry (cast iron)
Item No. XTK26-26.00
- ▶ GEN3SYS XT Pro holder
3xD length
Item No. HXT0326S-125F

446% increase in penetration rate



The cast iron geometry insert with AM440 coating + the holder with enhanced coolant design provided:

- ✓ Increased penetration rate
- ✓ Decreased cycle time
- ✓ Maintained customer's tool life