



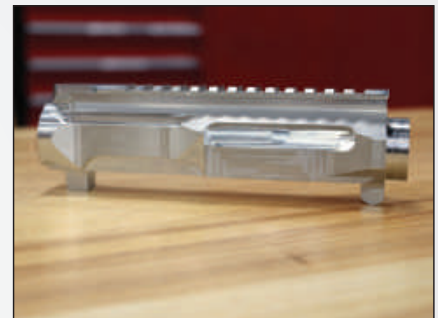
## Aiming for efficiency.

It's easier to hit your target when you have good tool life and an efficient machining process. Our customer who machines AR15 upper receivers was previously running a competitor drill that required an extra operation to maintain straightness—a feature that is key when machining firearms—causing a longer cycle time than desired.

Looking to improve their process, our customer tested the **T-A Pro drill** with the “N” ISO-specific nonferrous insert geometry, designed to improve chip formation in softer materials like aluminum. Not only did this yield excellent chip formation, but they were also able to run at a faster penetration rate.

In addition to these successes, the T-A Pro tracked extremely straight allowing the customer to remove an operation that was needed for straightness. Removing this operation from the machining process decreased their cycle time on the part beyond just the drilling process.

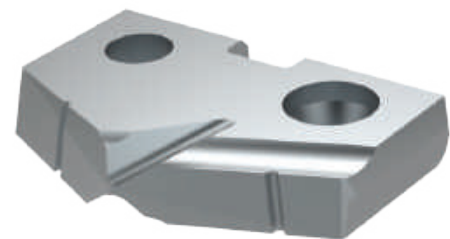
Don't take a shot in the dark; **set your sights on the best solutions.**



		Measure	Competitor Drill	T-A Pro Drill
<b>Product:</b>	T-A Pro drill			
<b>Objective:</b>	Increase tool life and efficiency	<b>RPM</b>	2200	2523
<b>Industry:</b>	Firearms	<b>Speed</b>	567 SFM (172.80 m/min)	650 SFM (198.12 m/min)
<b>Part:</b>	AR15 upper receiver	<b>Feed Rate</b>	0.0068 IPR (0.17 mm/rev)	0.0130 IPR (0.33 mm/rev)
<b>Material:</b>	7075 aluminum	<b>Penetration Rate</b>	15.00 IPM (381.0 mm/min)	32.80 IPM (833.1 mm/min)
<b>Hole Ø:</b>	0.9843" (25.00 mm)			
<b>Hole Depth:</b>	7.4000" (187.96 mm)	<b>Total Part Cycle Time</b>	30 sec	14 sec

▶ T-A Pro holder  
Item No. HTA2A07-125C

▶ T-A Pro insert  
N geometry (nonferrous)  
Item No. TAN2-25.00



54%  
cycle time decrease



The TiCN coated T-A Pro insert for use in nonferrous materials provided:

- ✓ Eliminated extra operation
- ✓ Decreased cycle time
- ✓ Increased penetration rate