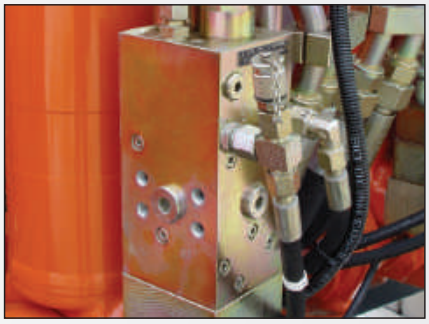
T-A PRO® DRILL

Making changes for better tool life.



Sometimes you just have to try another option. ur customer was machining titanium hydraulic manifolds using our tiny chip geometry drill insert. They were only able to achieve one or two holes per insert & requested our support to improve tool life.

The ***T-A Pro*** ISO-specific "M" geometry insert with AM460 coating, which provides industry-leading tool life in stainless steels and heat resistant superalloys, was the tool for the job. Not only was the customer able to run at higher penetration rates, but they were also able to improve their tool life with five to six holes per insert.

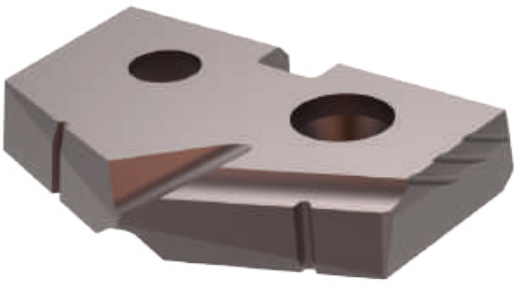
Improving your application doesn't have to be difficult. ***We'll work with you to find the solution that makes the most sense.***

Product:	T-A Pro drill
Objective:	Increase tool life
Industry:	General machining
Part:	Hydraulic manifold
Material:	6Al4V titanium
Hole Ø:	0.875" *(22.23 mm)*
Hole Depth:	4.000" *(101.60 mm)*
Tolerance:	+/- 0.005" *(0.13 mm)*
Surface Finish:	125 Ra µin *(3.175 Ra µm)*

Measure	Competitor Drill	T-A Pro Drill
RPM	349	349
Speed	80 SFM *(24.38 m/min)*	80 SFM *(24.38 m/min)*
Feed Rate	0.0040 IPR *(0.10 mm/rev)*	0.0070 IPR *(0.18 mm/rev)*
Penetration Rate	1.40 IPM *(35.6 mm/min)*	2.44 IPM *(62.0 mm/min)*
Total Part Cycle Time	2 min 51 sec	1 min 38 sec
Tool Life	1 hole	5 holes

▸ T-A Pro insert
P geometry (stainless steel)
Item No. TAM1-22.23

400% tool life increase



The AM460 coated T-A Pro insert for use in stainless steels and HRSAs provided:

- ✓ Increased tool life
- ✓ Decreased cycle time
- ✓ Increased penetration rate