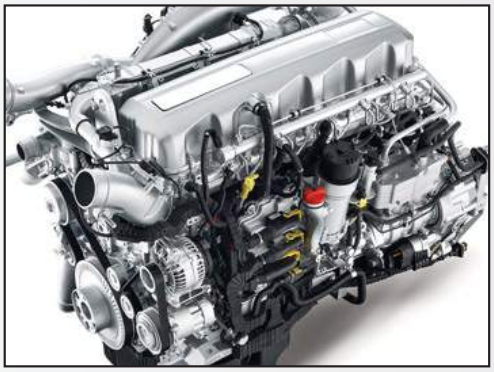
Semi-Truck Engine Block: T-A GEN2

The customer is manufacturing engines for semitrucks using a Mazak HMC MC1516 with water soluble coolant. The engine blocks are made out of cast iron.

Seeking to improve the production process, the customer needed to reduce cycle time, eliminate tool regrinding, and increase tool life.

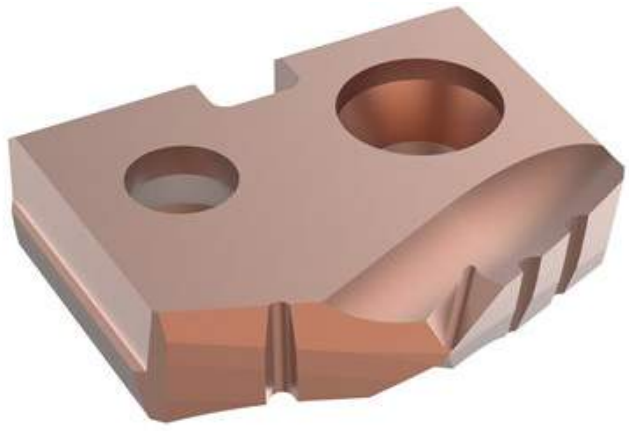
The **T-A GEN2** drastically increased the tool life and completely eliminated the need for regrinding. Additionally, the customer was able to lower their cost of production.



Product: T-A GEN2
Objective: (1) Decrease cycle time
(2) Eliminate tool regrind
(3) Increase tool life
Industry: Automotive
Part: Semi-truck engine block
Material: Cast iron
Hole Ø: 0.402" *(10.211 mm)*
Hole Depth: 1.100" *(27.940 mm)*

Measure	Competitor	T-A GEN2
RPM	2350	3600
Feed Rate	0.007 IPR *(0.178 mm/rev)*	0.005 IPR *(0.127 mm/rev)*
Cycle Time	5.01 sec	4.67 sec
Tool Life	625 holes	4000 holes

The T-A GEN2 offered *64%* cost per hole savings over the competitor tooling.



- T-A GEN2 insert
  Item No. 4C2YH-10.2
- T-A GEN2 holder
  Item No. 060830-31

540% tool life increase

The T-A GEN2 provided:

- ✓ Increased tool life
- ✓ Decreased cycle time
- ✓ Decreased cost per hole
- ✓ Eliminated tool regrind

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