

Pump Housing: T-A GEN2

The customer is manufacturing automotive pump housings made from Grey Cast Iron using a Haas VF4 machining center with water soluble coolant.

The tools had a tendency to break, and the customer wanted to eliminate the inconsistent tool life. The machine down-time increased the cost-per-hole.

The **T-A GEN2** met the customer's requirements by providing consistency and eliminating machine down-time. In the end, the lower-priced YG-1 tool ended up costing much more in terms of tool life, machine down-time, and the overall inconvenience of inconsistent tool performance.



		Measure	Competitor	T-A GEN2
Product:	T-A GEN2	RPM	1400	1650
Objective:	(1) Decrease tool inconsistency (2) Decrease cost per hole	Feed Rate	0.008 IPR (0.203 mm/rev)	0.008 IPR (0.203 mm/rev)
Industry:	Automotive	Penetration Rate	11.2 IPM (284.480 mm/min)	13.2 IPM (335.280 mm/min)
Part:	Pump housing	Cycle Time	8 sec	7 sec
Material:	Grey cast iron	Tool Life	1500 holes	3200 holes
Hole Ø:	0.843" (21.412 mm)	The T-A GEN2 offered 15% cost per hole savings over the competitor tooling.		
Hole Depth:	1.500" (38.100 mm)			

- ▶ T-A GEN2 insert
Item No. 4C21H-0027
- ▶ T-A GEN2 special holder

113% tool life increase

The T-A GEN2 provided:

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

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