

V35 Vane Pump Ring: T-A GEN2

The customer is machining V35 vane pump rings made from 52100 using a Mazak vertical machining center with 1000 PSI (69 bar) through tool synthetic coolant.

Looking for improvements, the customer asked Allied to provide a tool that would lower their cost per hole. The GEN2 T-A offered just that with 73% cost per hole savings over the competitor tooling.

The **T-A GEN2** made a significant difference for the customer.



		Measure	Competitor	T-A GEN2
Product:	T-A GEN2	RPM	1200	1200
Objective:	Decrease cost per hole	Feed Rate	0.012 IPR (0.305 mm/rev)	0.012 IPR (0.305 mm/rev)
Industry:	Heavy equipment	Penetration Rate	14.4 IPM (365.76 mm/min)	14.4 IPM (365.76 mm/min)
Part:	V35 vane pump ring	Cycle Time	10 sec	10 sec
Material:	52100 steel	Tool Life	40 holes	104 holes
Hole Ø:	0.984" (24.994 mm)	T-A GEN2 offered 73% cost per hole savings over competitor tooling.		
Hole Depth:	2.5" (63.5 mm)			



- ▶ T-A GEN2 insert
Item No. 452H-25
- ▶ T-A GEN2 holder
Item No. 22020S-125F

160% tool life increase

The T-A GEN2 provided:

- ✓ Decreased cost per hole
- ✓ Increased tool life
- ✓ Eliminated catastrophic failures