## **Torque Converter Spacers: Revolution Drill®**

The customer makes spacers for torque converters made from 1045 using a CNC lathe IKEGAI-Fx 25N with external coolant.

Because the Kennametal tool was expensive and had lengthy lead times, the customer asked Allied for a solution that would also improve cycle times and lower the cost per hole.

The **Revolution Drill**® met the customer's needs and provided twice as many drilled holes in half the time.



**Product:** Revolution Drill®

**Objectives:** (1) Decrease cycle time

(2) Decrease cost

**Industry:** Automotive

Part: Torque converter spacers

Material: 1045 Hole Ø: 1.9" Hole Depth: 3"

Measure	Competitor Tooling	Revolution Drill®
RPM	500	900
Feed Rate	0.003 IPR	0.0035 IPR
Penetration Rate	1.5 IPM	3.15 IPM
Cycle Time	2 min	1 min
Tool Life	300 holes	600 holes
Cost per hole	\$2.14	\$0.98

