

### Manufacturing Profile:

Component	Material	Machine
Slip Ring	4140 28-32Rc	Mazak Integrex

### Manufacturing Details:

**Current Process:** The customer is manufacturing Slip Rings for the oil and gas industry. The end-user was dissatisfied with their current tooling solution so Allied reviewed the existing process. A review of their previous process is below:

Tooling Used:	Dormer Cobalt Stub Drill
Hole Diameter:	0.4331" (11mm)
Hole Depth:	0.60" (15.24mm)
Surface Speed:	40sfm (12.2M/min)
Feed Rate:	1.76 IPM (44.70mm/min)
Tool Life:	500 Holes
Cost per Hole:	\$0.73
Cycle Time:	20.45 seconds



Test Objectives	Speed Up Drilling Process	Cost Savings
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### Allied's Solution:

Allied recommended the following tooling as a solution to the existing problem:

Product Line:	Holder:	Insert No.	Feed Rate:	Surface Speed	Tool Life
GEN3SYS <sup>®</sup> XT	603IIS-063F	7C11P-II	18.60 IPM (472.4 mm/min)	351 sfm (107 M/min)	5040 Holes

### Proven Innovation:

Allied's GEN3SYS<sup>®</sup> XT Drill provided solutions for both Time and Cost savings. The End-user also saw a 908% increase in the number of holes produced before having to change inserts once they switched to the GEN3SYS<sup>®</sup> XT High Penetration Drilling System.

Cycle Time	1.94 seconds
Savings: <i>Time</i>	90.5%
Cost per Hole	\$0.08
Savings: <i>Per Hole</i>	88.76%

**GEN3SYS<sup>®</sup> XT**  
 High Penetration Drilling System

