HEULE CASE STUDY

Reducing Production Costs for Machining Inconel Bearing Housings

Challenge
A precision manufacturer focused on the aerospace Industry was using a competitor’s back spotface tool for a gear housing, as the Heule BSF had not been introduced at the time his project began. Due to his lack of success with the competitor’s tool (tool breakage as well as insert longevity) the customer was willing to test the HEULE BSF not long after its introduction.

Application details:
• Main bore: Ø.278”
• Spotface diameter: Ø.535”
  Plus/Minus .008
• Material: Inco718 (cast)
• Machine: Cat 40 VMC
  Okuma: 1000Psi
  through-spindle

Solution

Machining parameters:
Speed: 55 SFM / 345 RPM
Feed: F=.0006” per revolution / .25 IPM
Coolant: Internal coolant

Results:
The HEULE BSF was able to complete 1 part per blade (10 holes) while the competitor’s tool used 5 blades per part. In-cut cycle time (time to index inserts on competitor not included) went from 62 minutes to 7 minutes 45 seconds. Estimated savings $130,000 amortized over 300 parts per year.