

HEULE CASE STUDY

Aerospace Application DEFA



Replacing Manual Deburring of Inconel in the Machining of Aircraft Components

Challenge:

A major manufacturer of jet engine and aircraft components wanted to replace the manual hand benching to deburr an Inconel part. Their goal was to automate that process to save both labor and time.

Application details:

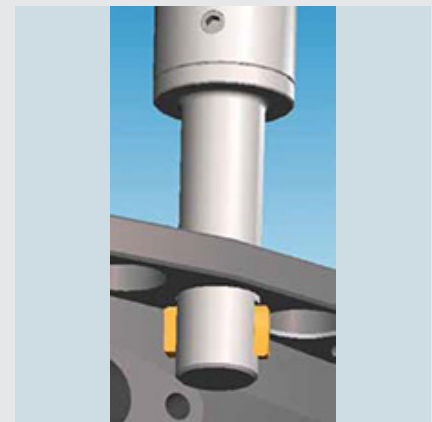
- Bore: Ø.345 and Ø.401 requiring front/back break edge 0.005-0.015"
- Chamfer: 0.010"x 90 degrees
- Material: Inconel 718
- Volume: 2 parts/wk (360 holes/part)
- Machine: NC
- Machining: horizontal

Solution:

Tool: DEFA11-34-339 and DEFA13-30-390
Blade life: 800-2000 holes

Machining parameters:

Speed: 60 SFM
Feed: 0.002 IPR



Results:

Customer successfully reduced a 2 1/2 hour manual operation to only 10 minutes. They reduced time, production and labor costs, and the machinist's physical risk of repetitive motion during hand benching.