



## Grinder System Application

# Blade Tip Repair

### Application

After welding the blade tip, automatically blend the repaired area back to the existing airfoil profile plus grind the blade to proper length and add the "squealer tip," without damaging the parent material.

Multiple stages of HPC blades to be blended with one system.

Minimal hand blending.

### Process

Each blade is held in a precision fixture after welding. Depending on part size and machine used, the process can accommodate one blade per cycle or multiple blades per cycle.

The process can make use of a variety of digitizing technologies to gather airfoil profile data. The data is then automatically converted into a CNC program which directs the machine to follow the correct contour.

The weld bead is ground to size without touching the parent material.

Grinding tolerances from -0.000 in to as low as +0.003 in (-0,0 mm to +0,076 mm).

### Material

Nickel-based and titanium-based material removed

### Cycle Time

Estimated range between one and a half to five minutes per blade depending on blade configuration and material removed.

### Machine Features and Benefits

Available on the Huffman HS-200, HS-190 and HS-150 Series Grinder Systems.

A 10HP (7kW) variable-speed spindle for CBN or diamond grinding wheels.

Contact probe or other digitizing device for data capturing.

Huffman Open Architecture Control (OAC) or other "open" controls provide seamless integration of the entire process,:

- Digitize
- Create program
- Execute grinding cycle,

all done automatically and with impressive speed.



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