



Knee Implants

Description

Production grinding of femoral knee implants.

Application

Grind the cast part to net shape. Polishing is the only remaining operation.

Integrates CAD model with Huffman's OAC or 3rd-party post-processor to create accurate wheel paths.

Process

The implants are mounted on an arbor and held between centers for quick changeovers.

A full radius grinding wheel or formed profile wheel is used for a wide range of part sizes.

Produces more accurate geometry with consistent surface finish.

Plated CBN wheels.

Coolant is oil-based or water-soluble delivered at a pressure of 100-300 psi (7-20 Bar) and a volume of 25 gpm (95 lpm).

Depth of cut can average up to 0.050" (1,27 mm).

Material

Cast cobalt chrome

Cycle Time

Actual cycle time depends on stock removed and desired surface finish.

Machine Features and Benefits

Available on Huffman HS-150 and HS-200 Series grinders.

A minimum of four CNC axes are required; five axes increase the flexibility of the system.

Multiple parts can be fixtured to increase throughput.

Quick payback from labor savings, expendable savings, quick changeovers and increased accuracy.

Flood coolant reduces heat induced stress and cracking.

Grinding from the casting to net shape reduces handling time and work in process (WIP).

Eliminates workers compensation issues associated with manual belt polishing operations.

Less inspection time required resulting from accurate rough grinding.

