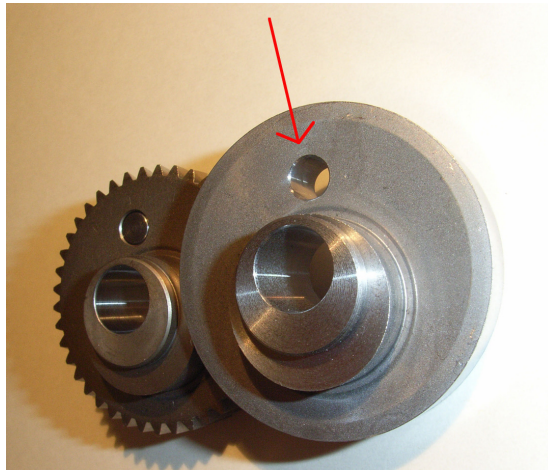


Eccentric gearwheel for electric power tool

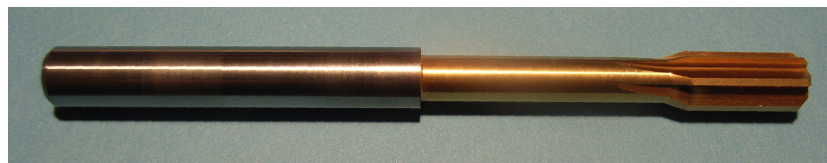
Material: Powder Metal (Sint E10)
Machine: Kummer K150 lathe
horizontal, driven tool
Bore diameter: 5.980mm $-.018/-0.028$ (0.2354" $-.0007/-0.0011$ ")
Bore length: 9.2mm (0.362")



Reamtec solution:

Reaming tool: Solid carbide reamer type 3252
with special edge preparation
Cutting material: Carbide, TiN coated
Bevel lead: Standard, 45 degrees
Tool holder: Precision collet chuck

Cutting conditions and results:



Cutting data: $V = 15\text{m/min. (550 rev/min)}$
 $f = 0.3 \text{ mm/rev (450mm/min)}$
Coolant: Emulsion 8% - 10%
Surface finish: Rz 4
Production time: 1.2 seconds per hole
Tool life: 20,000 holes
Remarks: Thanks to the special edge preparations, the tool life
is prolonged by a factor of 10!
Low cutting speed due to weak/slow secondary spindle