CYLINDRICAL LAPPING

Parts specification
Material: Al₂O₃ ceramics
Previous operation: ground
Dimensions: Ø 2.4 x 18 mm

Premachined condition
Base size: 2.4 mm
Surface: ground
Flatness: 0.002 mm
Parallelism: 0.002 mm

Process specification
Machine: FLM 500-R
Working wheel: GG
Stock removal: 2-5 μ
Pieces per load: 200
Cycle time without handling: 5:00 min.
Lapping compound: AWS-RB

Results
Tolerance in dimension: ± 0.1 μ
Cpk: 1.33
Ra: 0.05 μ
Rz: 0.02 μ
Flatness: 0.01 μ
Parallelism: 0.05 μ
Surface optical: crosshatch
CYLINDRICAL LAPPING

Parts specification
Material: sapphire
Previous operation: ground
Dimensions: Ø 1.1 x 5 mm

Premachined condition
Base size: 1.01 mm
Surface: ground
Flatness: 0.001 mm
Parallelism: 0.003 mm

Results
Tolerance in dimension: ± 0.5 μ
Cpk: 1.33
Ra: 0.05 μ
Rz: 0.5 μ
Flatness: 0.2 μ
Parallelism: 0.6 μ
Surface optical: polished

Process specification
Machine: FLM 500-R
Working wheel: cast iron
Stock removal: 5 μ
Pieces per load: 400
Cycle time without handling: 17:00 min.
Lapping compound: AWS-RB 1-2, PTG-RS