

Spherical Rollers

Spherical rollers are curved rolling seeds with self-aligning properties and heavy loading capacity. They automatically adjust to misalignment of gears or shafts, making them ideal for heavy or impact loading applications. Commonly used in industries like minerals, gearboxes, and paper machinery.



Size

Outer Diameter(mm) : $\varnothing 20 \sim \varnothing 60$

Length(mm) : 20~70

Radius of Curvature(R2) : 70~400

(Sizes beyond the range require discussion.)

Precision

Outer Diameter Tolerance(mm) : ± 0.05

Diameter Roundness(mm) : 0.05~0.06

Radius Roundness(mm) : 0.03

Surface Roughness S(mm) : 18~25

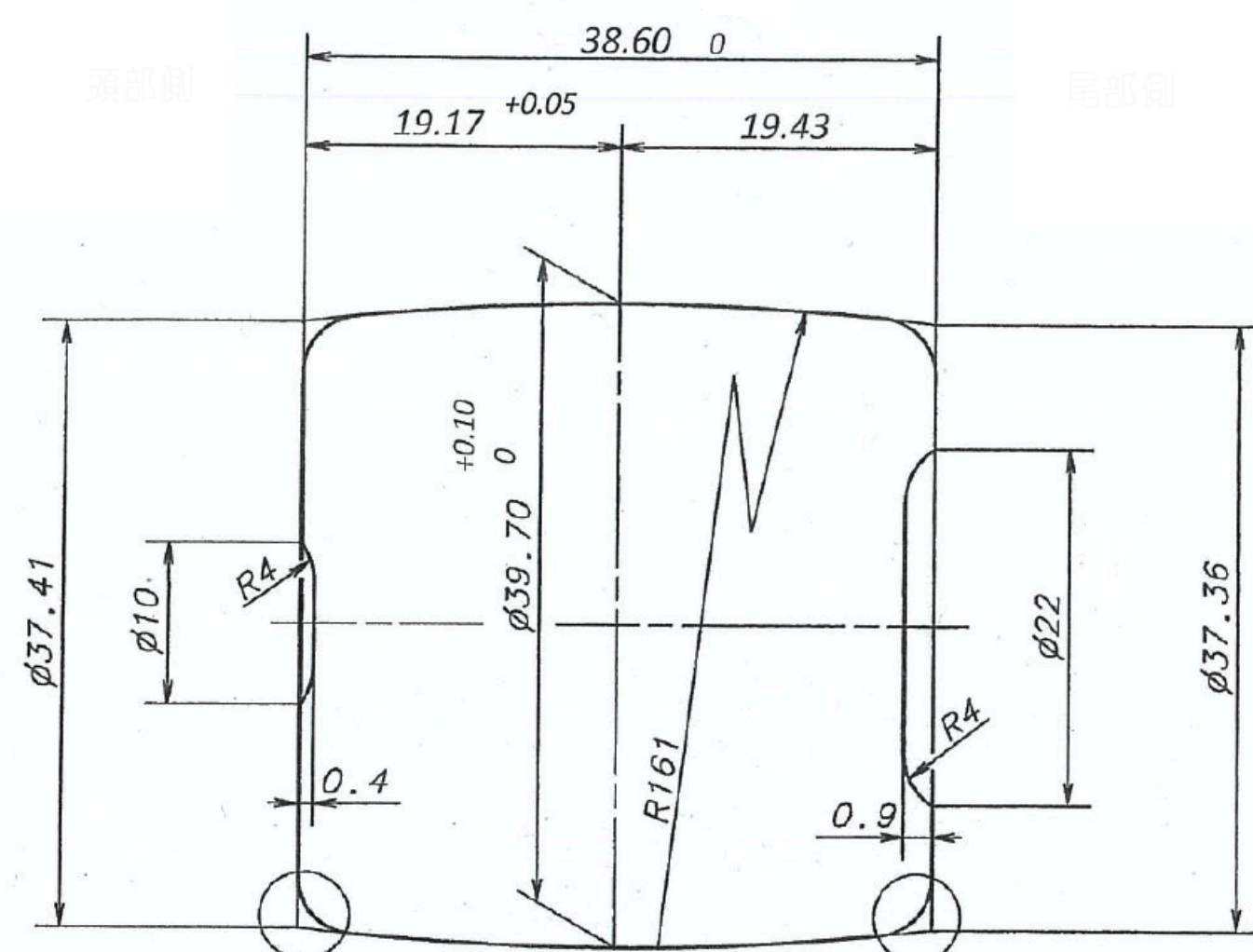
Materials & Process

Materials : SUJ-2•3, Carburizing

Process : Cold Forging, Milling

Production: 2 million/month

Certification: ISO 9001 Certified



Manufacturing Process — Cold Forging

MATERIAL MANAGEMENT

Organize and manage materials per each spec to ensure sufficient supply.



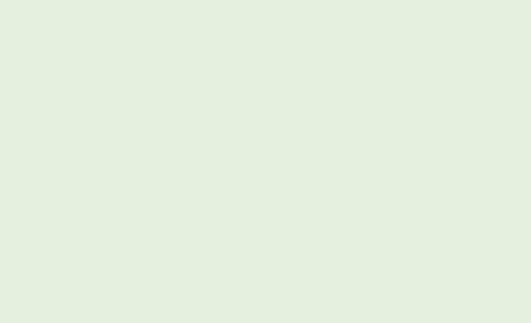
BAR CUTTING

Cut metal bars to required lengths with clean, even surfaces.



OUTER DIAMETER GRINDING

Grind and measure the bar's 3D diameters to ensure precision and roundness.



TUMBLING

Remove surface burrs and clean with kerosene for mirror surfaces.



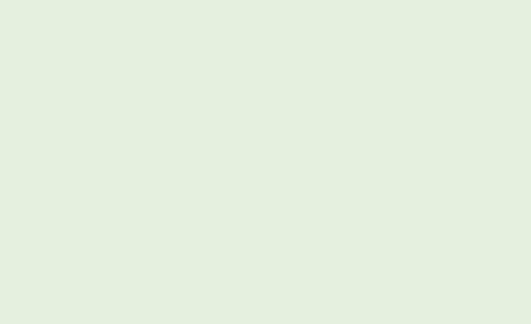
STAMPING PROCESS

Forge materials into desired shapes; this unique process can be implemented at Kyoei and is more efficient than traditional methods.



HEAT TREATMENT

Strengthen and harden parts through external heat treatment and inspections.



FINAL GRINDING & POLISHING

Grind end faces to meet precision requirements.

Refine outer diameter with precision grinding.

Polish surfaces to achieve smoothness and quality standards.

Further enhance surface smoothness per customer requirements.



DIMENSIONAL SORTING

Measure and sorting products by more specific tolerances.



APPEARANCE INSPECTION

Perform a visual check for defects and package products appropriately.



SHIPPING INSPECTION

Conduct final checks and prepare products for shipment.



Manufacturing Process — Milling

MATERIAL MANAGEMENT

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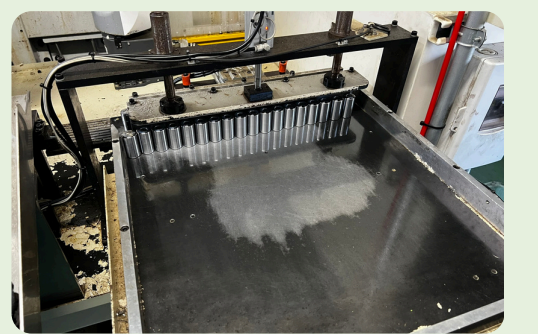
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NC MILLING

Cut and shape materials into spheres, cylinders, or cones using an automatic milling machine, ensuring dimensions meet specifications.



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