

# Precision Components

# Koyo®

## Ball, Needle & Roller Bearings

Companies around the world turn to Koyo for our expertise in materials science, and manufacturing of state-of-the-art friction management solutions. Koyo precision components are custom engineered to meet your specific design requirements.

Our specialized components are crafted from the highest quality steels within TS16949/ISO9000 AS91000 certified manufacturing facilities.

### State-Of-The-Art Manufacturing

Unique, in-house design and manufacturing capabilities (machine, heat treat, and grinding) enable us to provide cost effective solutions to satisfy a wide variety of application needs. Our processing resources provide a broad range of sizes and configurations offering precision tolerances for diameter, roundness, straightness and more.

### Features

Our expertise lies in the ability to match your unique requirements with our design for a truly custom product.

Koyo offers a variety of features to meet your most demanding applications:

- *Machined Features*
- *Precision Spherical Ends*
- *Grooves*
- *Knurls*
- *End Holes*
- *Cross Holes*
- *Metering Holes*
- *Threads*
- *Drive Features*
- *Form Ground Features*

### Thermal Treatment

In addition to common thermal treatment capabilities like through-hardening, carburizing, and carbonitriding, Koyo has a long history of applying cryogenic treatment to improve the performance of components in many demanding applications. These applications cross industries including aerospace, automotive, and construction/mining. Our proprietary cryogenic processes were developed over 20 years ago to support the demands of many aerospace applications. Over time we have recognized the many components which benefit from cryogenic treatment to optimize size stability in high performance, high precision applications.





## Customized Solutions

Because Koyo manufactures components in many different configurations from a wide range of materials, you can be sure to find exactly what you are looking for.

**Koyo precision components are available in a large variety of configurations and materials for your application needs**

## Common Applications

- *Gasoline Fuel System Components*
- *Diesel Fuel System Components*
- *Aerospace Rollers and Precision Rollers (DFAR Compliant)*
- *Planet Pins*
- *Racing Applications*
- *Rollers for Bearing Assemblies*
- *Gear Shafts*
- *Steering Column Pins*
- *Custom Assemblies*

## Product Flexibility

We offer flexibility in product volumes from small to large batches and can design special custom packaging and kits based on your needs.



Examples of custom assemblies

Precision Components - Material Examples		
Type	Material	Benefits
Through Hardened	52100	High quality, excellent wear resistance, excellent rolling contact fatigue life, bearing quality steel, high tensile
Case Hardened	1018	Easily cold-formed, low cost
	1085	Good wear resistance (induction hardened)
	1117	Best machinability, low cost
	4037	Good toughness, moderate cost
	8620	Good machinability, moderate cost, bearing quality steel
Stainless (Hardened)	440C	Hardened by heat treating, corrosion resistant, bearing quality
Stainless (Soft)	303, 304	Maximum corrosion resistance, non-magnetic, non heat-treatable
Special	Tool steel M series	Superior wear resistance, maintains hardness in high temperature applications and/or subsequent processing



**Call Koyo Today 1-866-696-4503**

Our sales and service engineers are available to assist with product design needs, maintenance recommendations, and technical support.

To learn more, contact your sales representative or visit us online at:

[www.JTEKT-NA.com](http://www.JTEKT-NA.com)

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