

**Complex Bearing Assemblies with Customized Features**



*NHBB manufactures a wide range of special bearings designed to meet specific requirements. If the challenge you face involves high load, extreme speed, limited space, simplified assembly, efficient distribution of lubrication, or any number of similar situations requiring custom design, we're ready to help.*

*A sampling of our special design features include anti-rotation tabs to prevent ring rotation under load, oil scavenge holes to enable lubricant circulation and removal, and puller grooves to allow for simple disassembly. Read on to see what our experienced staff of applications engineers can design specifically for you.*

**Mainshaft Bearing Assemblies with Integral Flexure Beams**

These complex bearing assemblies incorporate flexure beams to control vibration at high speeds.

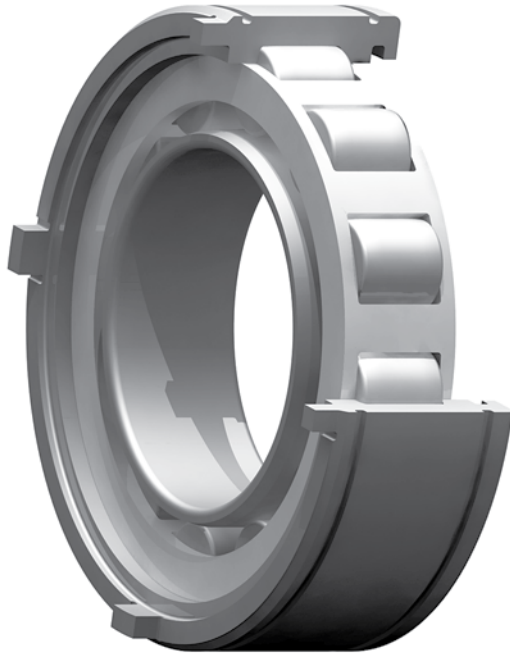


**Cylindrical Roller Bearing Gas Turbine Mainshaft**

This unique bearing features an innovative extended inner ring to direct the flow and enhance the distribution of spent lubricant during the scavenge process.



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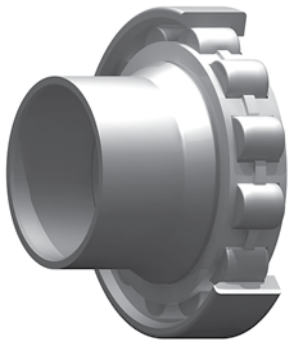


**Cylindrical Roller Bearing  
Gas Turbine Mainshaft**

A series of integral anti-rotation tabs prevent the ring on this bearing from rotating under load. The piston ring grooves machined into the outer ring accommodate fluid-damped mounting to further reduce vibration.

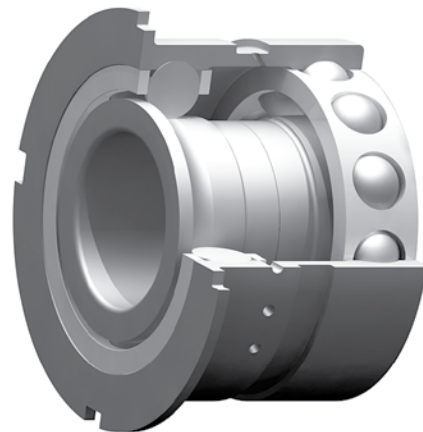
**Super Duplex Ball Bearing  
Main Fuel Pump**

A locator flange on the outer ring ensures precise positioning and ease of installation. This bearing is supplied as a matched set for high moment resistance.



**Cylindrical Roller Bearing  
Aircraft Engine  
Hydraulic Pump**

This unique design features an extended inner ring to allow offset mounting under tight space constraints.



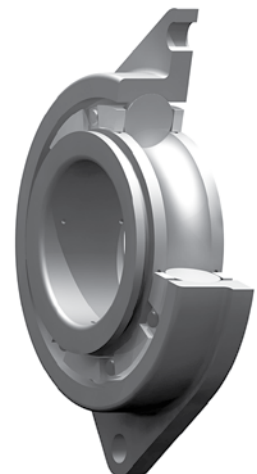
**Cylindrical Roller Bearing  
Gas Turbine Engine  
Accessory Gearbox**

The integral flange of this bearing simplifies mounting while the oil holes on the inner ring ensure consistent lubrication.



**Radial Ball Bearing  
Gas Turbine Engine  
Accessory Gearbox**

The integral flange and puller groove allow for ease of installation and simple disassembly.



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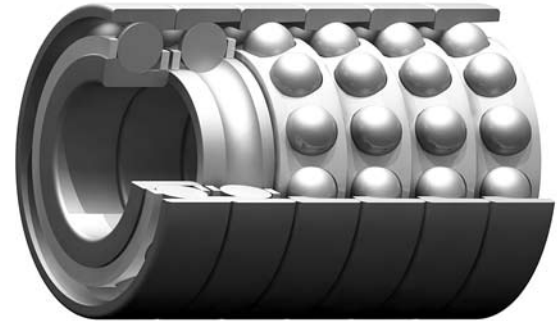
**Super Duplex Ball Bearing  
Gas Turbine Power Take Off**

The puller groove on this bearing simplifies disassembly while the oil scavenge holes enable spent lubricant to exit freely.



**Matched Set of Six Ball Bearings  
Helicopter Blade Retention**

These bearings are designed to accommodate extremely high thrust loads and can be ordered in matched sets of two to eight.



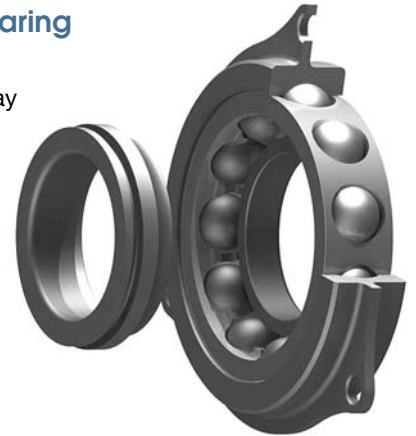
**Duplex Ball Bearing  
Main Fuel Pump**

The integral mounting flange and full sleeve on this bearing provide ease of installation and fit.



**Gothic Arch Ball Bearing**

The split inner ring of this bearing minimizes end play which reduces wear and extends the useful life of the application. The puller groove simplifies disassembly.



**Full Complement  
Thin Section  
Ball Bearing  
Helicopter Rotor  
Swash Plate**

Specified when bearing weight and size need to be kept to a minimum, this bearing has a thin cross section and a high quantity of small diameter balls which increase stiffness, reduce deflection, and lower starting and running torque.

**Duplex Tandem Ball Bearing  
Helicopter Main Gearbox**

This bearing was designed specifically for high thrust capacity. A split inner ring minimizes end play, thereby reducing wear and extending the useful life of the gearbox.

