Super-precision angular contact ball bearings: 718 series

Enhance performance with the new generation SKF compact 718 series

SKF super-precision angular contact ball bearings in the 718 series provide optimum performance in applications where there is a need for low cross section, high degree of rigidity, speed and superior accuracy. They are particularly suitable for machine tool applications, multi spindle drilling heads, robotic arms, measuring devices, racing car wheels and other precision applications.

The assortment in the 718 series is available, standard, as all-steel bearings and hybrid bearings.

Applications
- Machine tools
- Robotics
- Printing
- Measuring systems
- Racing car wheels

Requirements
- High positioning accuracy
- Reliable positioning repeatability
- Low energy consumption
- Long service life
- Easy mounting
- Increased machine uptime
- High power density for compact designs

Unique choice of preloads:

To balance the need for rotational speed and system rigidity, bearings in the 718 series are produced to different preload classes.

In applications where a high degree of system rigidity is more important than high speed, the following preload classes are available:

- class A, light preload
- class B, moderate preload
- class C, heavy preload

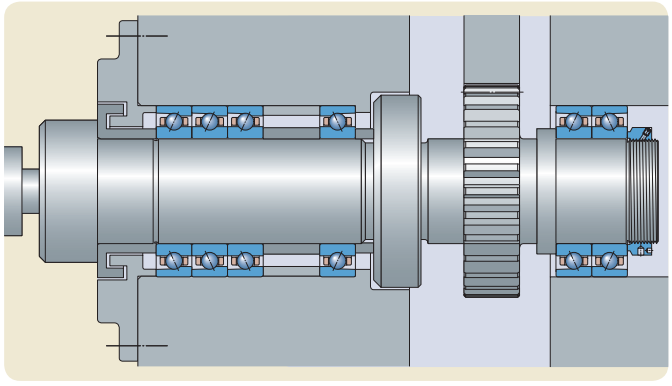
In applications where high speeds take precedence over the degree of rigidity, the following additional preload classes are available:

- class L, reduced light preload for asymmetrical bearing sets
- class M, reduced moderate preload for asymmetrical bearing sets
- class F, reduced heavy preload for asymmetrical bearing sets

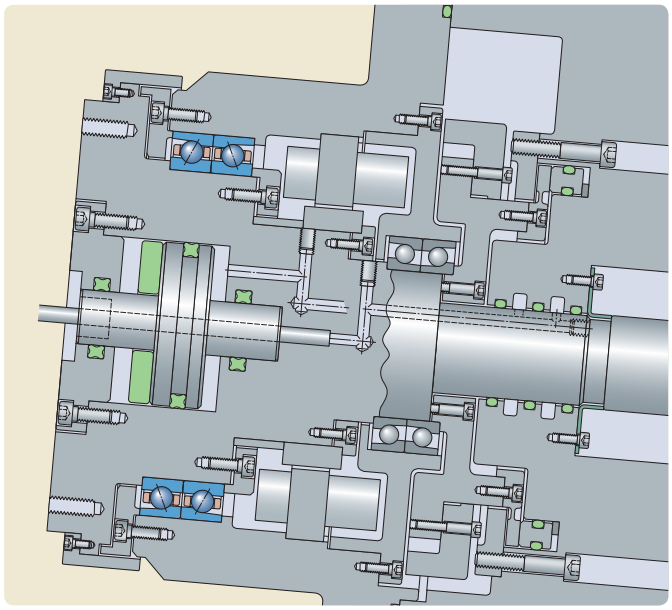
These preload classes are only available for matched, asymmetrical bearing sets such as TBT, TFT, QBT and QFT arrangements.

Benefits

- Optimized corner radii of the rings simplifies mounting, improves mounting accuracy and reduces the risk of damage to associated components
- Higher speed capability
- Extended product range
- Unique heat treatment process provides maximum dimensional stability and hardness to reduce wear
- Different preload classes available to match the application requirements for speed and system rigidity



Application example: Multispindle drilling head
For multispindle drilling heads, where radial space is limited and axial rigidity is very important, super-precision angular contact ball bearings matched in a set of four bearings (arranged back-to-back and tandem), e.g. 71802 ACD/P4QBTA, incorporating a set of precision-matched spacer rings, can be used.



Application example: Grinding workhead
In a grinding workhead, where rigidity is important and available space limited, a set of two super-precision angular contact ball bearings, e.g. 71824 ACD/P4DBB, are suitable.

The Power of Knowledge Engineering

Combining products, people, and application-specific knowledge, SKF delivers innovative solutions to equipment manufacturers and production facilities in every major industry worldwide. Having expertise in multiple competence areas supports SKF Life Cycle Management, a proven approach to improving equipment reliability, optimizing operational and energy efficiency and reducing total cost of ownership.

These competence areas include bearings and units, seals, lubrication systems, mechatronics, and a wide range of services, from 3-D computer modelling to cloud-based condition monitoring and asset management services.

SKF's global footprint provides SKF customers with uniform quality standards and worldwide product availability. Our local presence provides direct access to the experience, knowledge and ingenuity of SKF people.

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