



Angular Bearings



Angular bearings are precision bearings that can simultaneously bear radial and axial loads, and are widely used in miniature fields characterized by low to medium loads and low torques.

By using them in sets of two bearings, they are able to maintain the appropriate precompression state, and are mainly used as support bearing units for ball screws and rotating main axles.

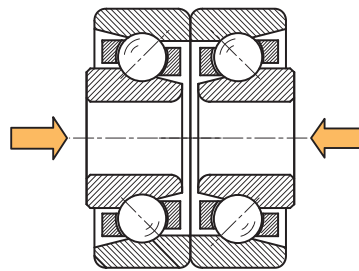
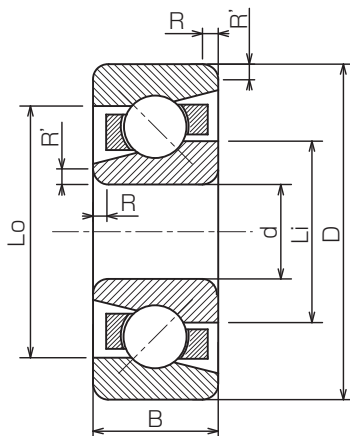


01 Specifications for the Standard Models

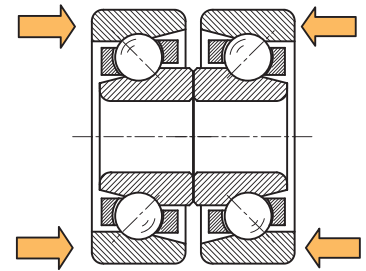
Naming and auxiliary symbols

Bearing numbers		Bearing type codes
Bearing type codes	Size codes	
AC	4-12	DF
AC = Angular bearings	Bore – Outside dia.(mm)	DB = Back combination DF = Front combination

Dimensions



Model DB
An inner ring is pressurized.



Model DF
An outer ring is pressurized.

Unit=mm

Nominal Number	Dimensions				Land dia.		Basic load ratings	
	Bore $d_{-0.005}^0$	Outside dia. $D_{-0.005}^0$	Width B	Chamfer (R-R')	Inner ring (Li)	Outer ring (Lo)	Dynamic load C (N)	Static load Co (N)
AC 4-12	4	12	4	0.6-0.3	7.5	8.56	841	274
AC 5-14	5	14	4	0.6-0.3	8.6	9.65	905	304
AC 6-16	6	16	5	0.6-0.3	9.9	11.25	1248	441
AC 8-18	8	18	6	0.7-0.35	12.4	13.75	1619	647
AC 10-26	10	26	8	0.8-0.5	16.6	19.4	2742	1204

02 Features

1. Supports high loads

The contact angle of 45 degrees shows superior performance against axial load.

2. High rotation speed

The retainer is made of plastic, has small inertia, and supports high rotation speeds.

3. Undivided structure

The inner and outer rings have an undivided structure that is easy to handle.

4. Customizable

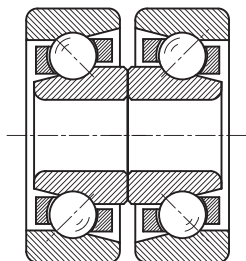
Stainless steel is also supported.

5. High precision

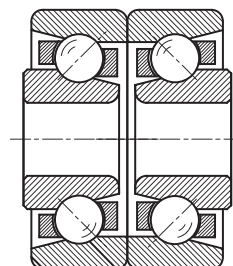
The duplex precision is equivalent to grade 5.

03 Features of duplex bearings

Front-to-front (DF)

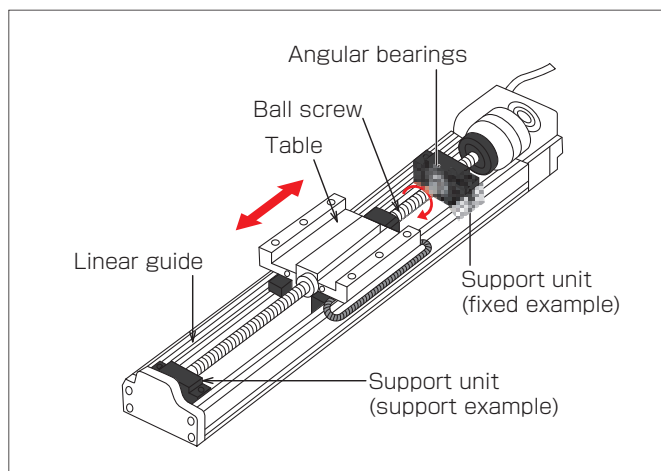


Back-to-back (DB)

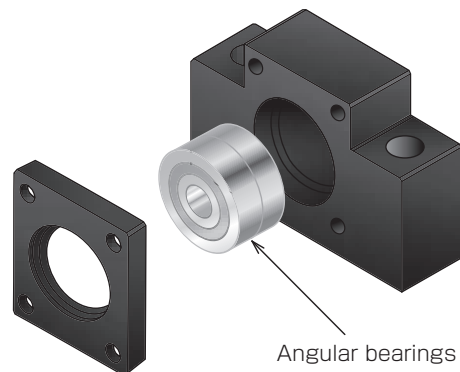


Distance between bearing load points	Small	Large
Momentum load capacity	Weak	Strong
Tolerable tilt angle	Large	Small
Misalignment tolerance	Large	Small

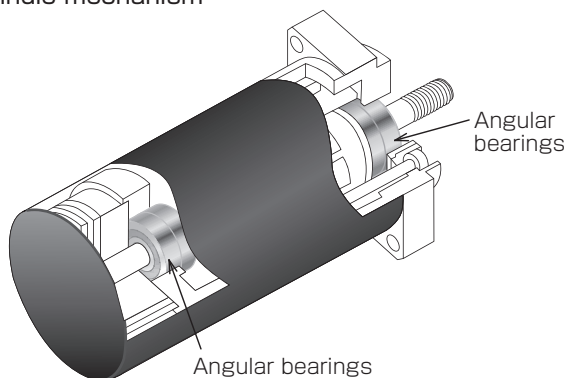
04 Example applications



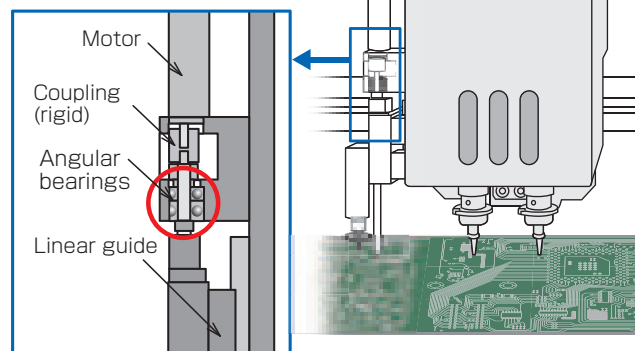
Ball screw support unit



Spindle mechanism



Chip mounter (head part)





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Safety
Warning

The data presented in this catalog are for general application purposes. Do not use this product in such a way that may be harmful to people or exceed its performance.

Safety
Precaution

To avoid accidents and/or failures as well as to ensure safety, do not use this product exceeding the specifications noted in this catalog and ignoring the precautions.

*Specifications are subject to change without a notice for future development.