

Angular Contact Bearings with Housings

Guide

Angular Contact Bearings with Housing Sets

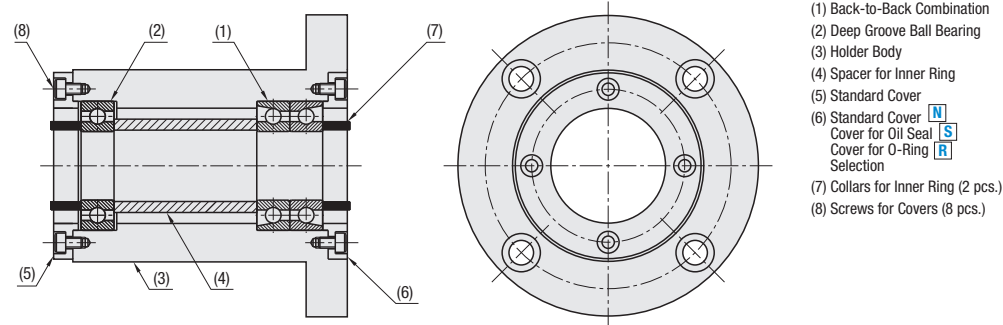
Features

The angular contact bearings with housing set is a unit holder which includes Back-to-Back bearings.

Usage

Suitable for high loading applications with both radial and axial load.

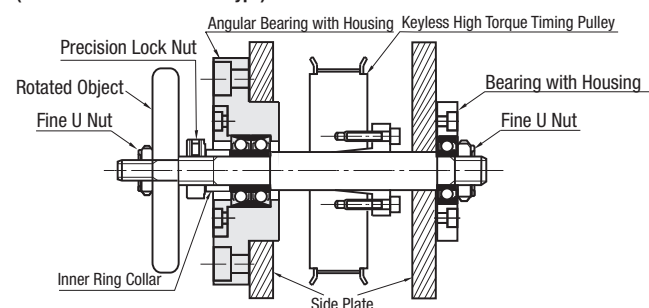
Structure Diagram



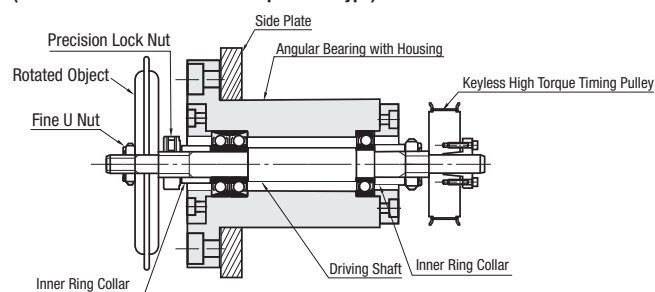
Product Lineup & Example of Use

- 2 New types, the flanged type and the pilot type, have been added to back-to-back combination and deep groove type.
- A compact back-to-back combination type that can be combined with other bearing housings has also been newly added.

Example (1) (Back-to-Back Combination Type)



Example (2) (Back-to-Back Combination + Deep Groove Type)



Cautions on Angular Contact Bearings with Housing Selections

- MISUMI angular contact bearings are designed for grease lubrication.
- Angular contact bearings are not pre-greased at the time of shipment. Please apply grease before use.
- An outer ring cover for grease splash prevention is included with the angular contact bearings.
- For grease splash prevention, an outer ring fixing cover can be selected from type S (for oil seal) and type R (for O-ring). An oil seal and O-ring are included as standard.
- An inner ring collar is included for use with bearing lock nuts. (The collar is not necessary on stepped shafts)

For Back-to-Back Combination Type (ABGEB, ABGE)

- When the rotary shaft is long, it can be used in combination with the regular bearing with housings for deep groove ball bearings. (Refer to the example of use (1))

For Back-to-Back Combination + Deep Groove Type (ABGCB, ABGC, ABGYB, ABGY)

- A normal cover for outer ring fixing is included with the radial bearing.
- Outer ring of the radial bearing is not fixed in thrust direction.
- A spacer for inner rings is included as an accessory that can be used to axially tie the inner rings of the angular contact bearings and deep groove ball bearing together.

Mounting Procedures for Angular Contact Bearings with Housing

1. Apply grease to angular contact bearings.
2. Put the bearings together in a back-to-back relationship.
3. Insert the rotary shaft into the Angular Contact Bearings set.
4. Insert the shaft into the inner ring spacer.
5. Insert the angular contact bearings into the holder.
6. Install the deep groove ball bearing on the shaft, and then into the holder.
7. Mount the outer ring cover with the screws by tightening them evenly.
8. Install the inner ring collar on the shaft with a bearing nut.
9. Verify whether the shaft rotates smoothly.

Angular Contact Bearings with Housings

Flanged – Angular Contact Back-to-Back Combination

Angular Contact Bearings with Housings – Flanged – Angular Contact Back-to-Back Combination

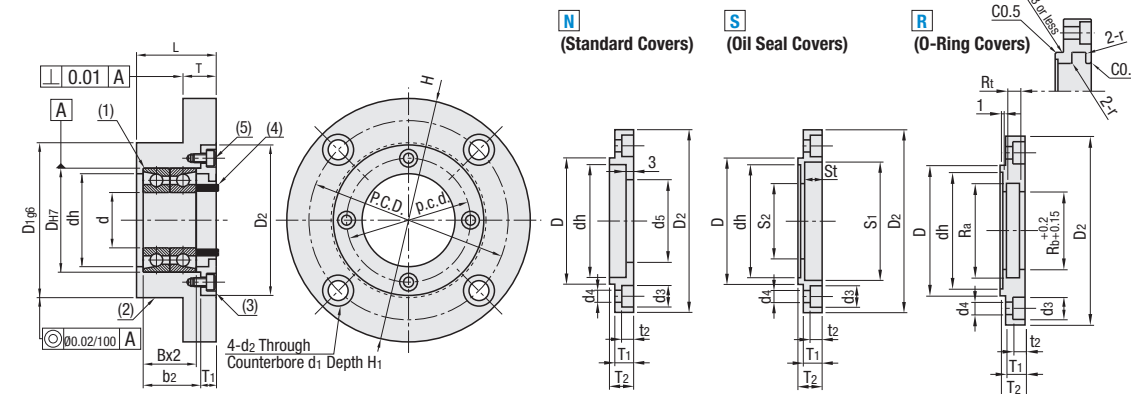


RoHS 10

Type	(1) Angular Contact Bearings (Back-to-back Combination)		(2) Housings (4) Inner Ring Collars		(5) Cover Mounting Screws	
	Material	Surface Treatment	Material	Surface Treatment	Material	Surface Treatment
ABGEB	52100 Bearing Steel	1045 Carbon Steel or Equivalent	4137 Alloy Steel or Equivalent	Black Oxide	304 Stainless Steel	Black Oxide
ABGE		Electroless Nickel Plating		—		

Bearing Accuracy (Angular Contact Bearings) JIS B 1514 Class 4* Contact Angle 15°

- Ⓝ The Angular Contact Bearings with Housing is delivered with the parts unassembled to the holder body.
- Ⓞ Be sure that bearing outer race rings and inner rings are firmly fixed by the covers and bearing lock nuts before use.
- Ⓟ Collar (4) is not included with Cover for Oil Seal and O-Ring.
- Ⓠ Contact with O-Ring may generate some friction.



Part Number	Type	Bearing No.	(3) Cover Types Selection	L	d	D ₁₉₇	Tolerance	B	b ₂	H	D ₂	T	dh	D ₁₉₆	Tolerance	P.C.D.	d ₁	d ₂	H ₁		
																				ABGEB	ABGE
ABGEB Black Oxide	N	7002	Standard Cover	29	15	32	+0.025 0	9	20	75	48	12	28	50	-0.009 -0.025	62	11	6.6	6.5		
		7003		31	17	35		10	22				31							75	
		7004		36	20	42		12	26				36							60	75
		7005		38	25	47		15	31				41							65	80
ABGE Electroless Nickel Plating	S	7006	Oil Seal	40	30	55	+0.030 0	13	28	120	78	18	48	80	-0.010 -0.029	98	17.5	11	10.5		
		7007		43	35	62		14	30				55							86	106
		7008		46	40	68		15	32				60							95	116
		7009		48	45	75		16	34				69							100	122
		7010		50	50	80		16	34				74							105	124
		7010		50	50	80		16	34				74							105	124

No.	D	D ₂	dh	T ₁	T ₂	P.C.D.	d ₃	d ₄	t ₂	(3) Cover Details										(5) Cover Mounting Screws	(4) Collar Details		
										N Standard Cover			S Oil Seal Covers			R O-Ring Covers					Outer Diameter	Inner Diameter	Thickness
										d ₅	S ₁	S ₂	St	Accessory Oil Seal	Ra	Rb	Rt	r	Accessory O-Ring				
7002	32	48	28	6	8	40	6.5	3.5	3.1	21	32	22	5	G20325	24	20	3.2	0.4	P20	M3-8	20	15	8.5
7003	35	51	31	6	8	40	6.5	3.5	3.1	21	32	22	5	G20325	24	20	3.2	0.4	P20	M3-8	20	17	8.5
7004	42	58	36	7	9	48	8	4.5	4.1	26	35	27	6	D25356	31	25	4.7	0.7	P25	M4-10	25	20	9.5
7005	47	63	41	8	10	53	9.5	5.5	5.1	31	40	32	7	D30407	36	30	4.7	0.7	P30	M4-10	30	25	10.5
7006	55	78	48	8	10	64	9.5	5.5	5.1	41	50	42	6.5	D40506.5	41	35	4.7	0.7	P35	M5-12	40	30	11.5
7007	62	84	55	9	11	72	11	6.6	6.1	46	60	47	9	D45609	46	40	4.7	0.7	P40	M5-12	45	35	11.5
7008	68	92	60	9	11	78	11	6.6	6.1	51	65	52	9	D50659	51	45	4.7	0.7	P45	M6-12	50	40	11.5
7009	75	98	69	9	11	85	11	6.6	6.1	56	70	57	9	D55709	56	50	4.7	0.7	P50	M6-12	55	45	11.5
7010	80	101	74	11	13	88	11	6.6	6.1	61	75	62	9	D60759	70	60	7.5	0.8	P60	M6-15	60	50	13.5

