

Angular Contact Bearings with Housings

Overview

Angular Contact Bearings with Housings

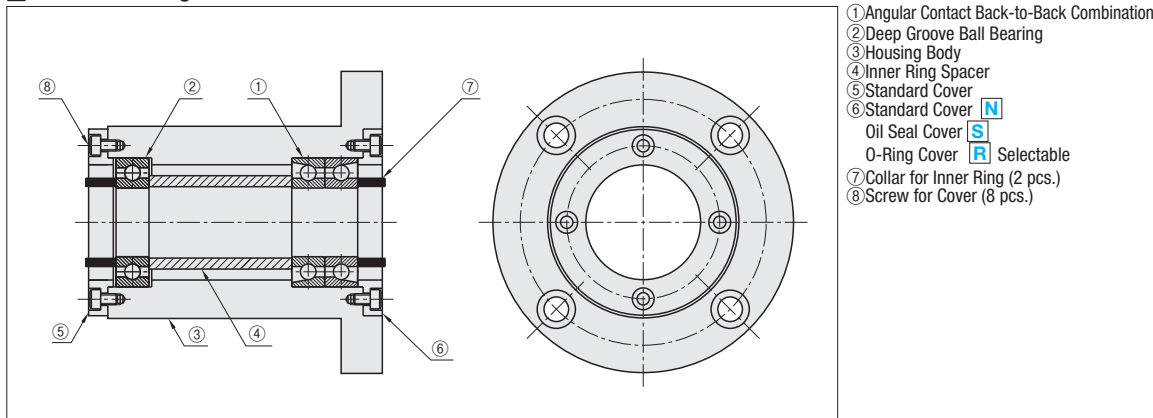
■Features

- The Angular Contact Bearings with Housing set is a unit holder which includes Back-to-Back Bearings.

■Application

- Suitable for heavy load applications with both radial and axial load.

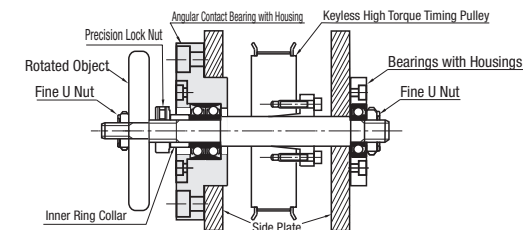
■Construction Diagram



■Product Lineup and Application

- Two New types, the flanged type and the pilot type have been added to Angular Contact Back-to-Back Combination + Deep Groove Ball Bearing Type.
- A compact Angular Contact Back-to-Back Combination Type that can be combined with other bearing housings has also been newly added.

App. Example① (Angular Contact Back-to-Back Combination)



■Cautions on Angular Contact Bearings with Housings Selection

- 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.)

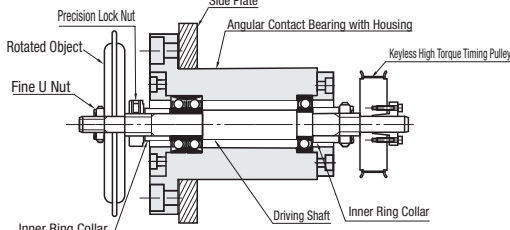
For Back-to-Back Combination Type (ABGEB, ABGE)

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

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

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

App. Example② (Angular Contact Back-to-Back Combination + Deep Groove Ball Bearing)



■Mounting Procedures for Angular Contact Bearings with Housings

1. Apply grease on an angular contact bearings.
2. Put the bearings together in a back-to-back combination.
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

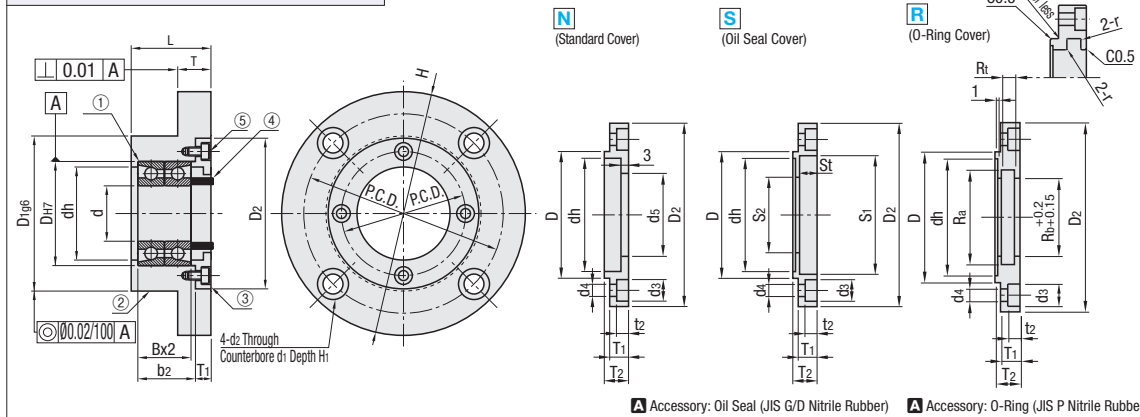
Angular Contact Back-to-Back Combination - Flanged



Type	① Angular Contact Bearings (Back-to-Back Combination)	② Housing	④ Inner Ring Collar	⑤ Cover Mounting Screw	
	M Material	M Material	S Surface Treatment	M Material	S Surface Treatment
ABGEB ABGE	EN 1.3505 Equiv.	EN 1.1191 Equiv.	Black Oxide Electroless Nickel Plating	EN 1.7220 Equiv. EN 1.4301 Equiv.	Black Oxide -

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

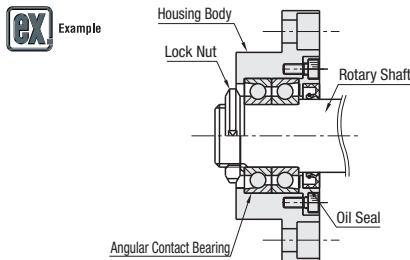
- ① The Angular Contact Bearings with Housings is delivered with the parts unassembled to the holder body.
- ② Make sure that bearing outer rings and inner rings are firmly fixed by the covers and bearing nuts before use.
- ③ Contact with O-Ring may generate some friction.



Part Number		③ Cover Type Selection	L	d	DH7	Tolerance	B	b2	H	D2	T	dh	D1g6	Tolerance	P.C.D.	d1	d2	H1
Type	Bearing No.																	
ABGEB (Black Oxide)	7002	N Standard	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	50					
	7004		36	20	42		12	26	92	58	15	36	60	-0.010 -0.029	75	14	9	8.5
	7005		38	25	47		98	63	41	65	80							
	7006		40	30	55		13	28	120	78	18	48	80	98				
ABGE (Electroless Nickel Plating)	7007	S Oil Seal	43	35	62	+0.030 0	14	30	126	84	18	55	86	-0.012 -0.034	106	17.5	11	10.
	7008		46	40	68		15	32	140	92		60	95		116			
	7009		48	45	75		16	34	145	98	20	69	100	122				
	7010		50	50	80				147	101	74	105	124					

No.	③ Cover Details																			⑤ Cover Mounting Screw	④ Collar Details					
	D	D2	dh	T1	T2	P.C.D.	d3	d4	t2	N Standard Cover				S Oil Seal Cover				R O-Ring Cover					O.D.	I.D.	Thickness	
										d5	S1	S2	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		31							17																
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	53	31	40				32	7	D30407	36	30	P30	30			25							
7006	55	78	48	10	64	9.5	5.5	5.1	41	50	42	6.5	D40506.5	41	35	P35			M5-12	40	30	10.5				
7007	62	84	55		72				46	60	47			D45609	46	40				P40	45		35			
7008	68	92	60	9	78	11	6.6	6.1	51	65	52			9	D50659	51	45	P45	M6-12	50	40	11.5				
7009	75	98	69		85				56	70	57					D55709	56	50		P50	55		45			
7010	80	101	74	11	13	88			61	75	62		D60759			70	60	7.5	0.8	P60	M6-15	60	50	13.5		

	Part Number		Cover
	Type	Bearing	
	ABGE	7003	



No.	ABGEB			ABGE		
	Cover N	Cover S	Cover R	Cover N	Cover S	Cover R
7002	1 pc.	2-4 pcs.	1 pc.	1 pc.	2-4 pcs.	1 pc.
7003						
7004						
7005						
7006						
7007						
7008						
7009						
7010						