


Self-Aligning Ball Bearings

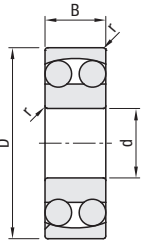
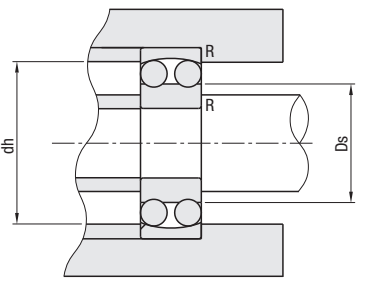
Features: The self-aligning feature tolerates mounting misalignment and deflection during rotation.



Self-Aligning Ball Bearings

RoHS 10

B1 ___

Installation Diagram

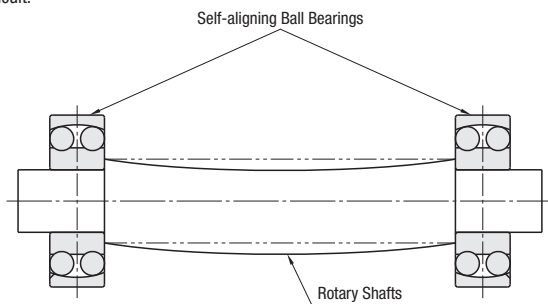
Material: 52100 Bearing Steel
Accuracy Class JIS B 1514 Class 0

kgf=Nx0.101972

Part Number	d	D	B	r (min)	Basic Load Rating		Allowable Rotational Speed rpm (Reference)	Relative Dimensions			Weight (g) (Reference)
					Cr (Dynamic) N	Co (Static) N		Ds (min)	dh (max.)	R (max.)	
B1200	10	30	9	0.6	5.55	1.19	22000	14.0	26.0	0.6	33
B1300		35	11	0.6	7.35	1.62	20000	14.0	31.0	0.6	57
B1201	12	32	10	0.6	5.70	1.27	22000	16.0	28.0	1	39
B1301		37	12	1	9.65	2.16	18000	17.0	32.0	1	66
B1202	15	35	11	0.6	7.6	1.75	18000	19.0	31.0	0.6	51
B1302		42	13	1	9.7	2.29	16000	20.0	37.0	1	93
B1203	17	40	12	0.6	8.00	2.01	16000	21.0	36.0	0.6	72
B1303		47	14	1	12.7	3.20	14000	22.0	42.0	1	130
B1204	20	47	14	1	10.0	2.61	14000	25.0	42.0	1	120
B1304		52	15	1.1	12.6	3.35	12000	26.5	45.5	1	165

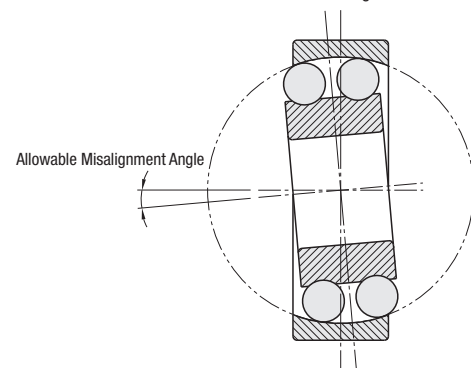
Design & Features

The outer ring raceway forms a spherical surface, whose center of curvature is common to the bearing center. Thus the inner ring, balls and cage are capable of freely revolving around the bearing center with self-aligning ability. Suitable to use with drive shafts, which tend to undergo deflection. This is also fit to use in a situation that alignment of a shaft and housing is difficult.



Allowable Misalignment Angle


Allowable misalignment angle of self-aligning ball bearings is approx 0.07–0.12 radian (4–7°) at normal load condition, however this degree of allowable misalignment may be limited by the abutment and fillet dimensions around the bearing.



Part Number Example	Part Number
	B1300
	B1303

Deep Groove Ball Bearings with Groove

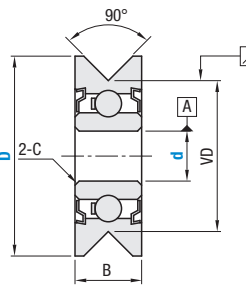
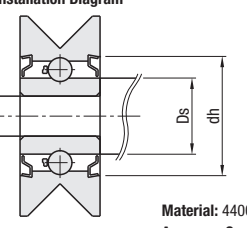
Features: The O.D. is decreased by directly machining a V groove on the outer ring of the bearing.



Deep Groove Ball Bearings with Groove

RoHS 10

SZV


Installation Diagram

Material: 440C Stainless Steel or Equivalent
Accuracy Grade: JIS B 1514 Class 0

kgf=Nx0.101972

Part Number	Type	d	D	B	VD	C Chamfer	Basic Load Rating		Relative Dimensions		Weight (g) (Reference)
							Cr (Dynamic) N	Co (Static) N	Ds (min)	dh (max.)	
SZV	3	12	4	4	9.06	(0.25)	542	186	4.5	7.5	1.3
	3	14			11.06						1.9
	4	12			9.06						1.2
	4	14			11.06						1.8
	6	16	13.06	650	235	7.5	10	2.1			

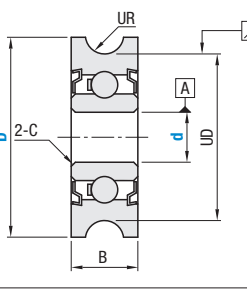
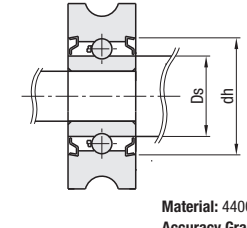
V Groove valley radii is R0.2.



Deep Groove Ball Bearings with Groove

RoHS 10

SZU





Installation Diagram

Material: 440C Stainless Steel or Equivalent
Accuracy Grade: JIS B 1514 Class 0

kgf=Nx0.101972

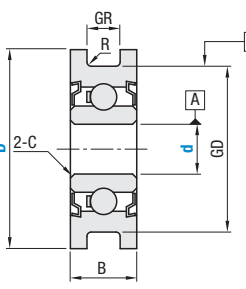
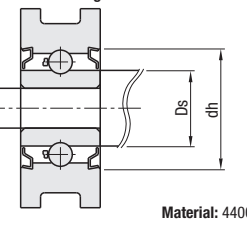
Part Number	Type	d	D	B	UD	UR (Groove Radius)	C Chamfer	Basic Load Rating		Relative Dimensions		Weight (g) (Reference)
								Cr (Dynamic) N	Co (Static) N	Ds (min)	dh (max.)	
SZU	3	12	4	4	10	1.15	(0.25)	542	186	4.5	7.5	1.2
	3	14			12							1.8
	4	12			10							1.1
	4	14			12							1.8
	6	16			14							650



Deep Groove Ball Bearings with Groove

RoHS 10

SZG

Installation Diagram

Material: 440C Stainless Steel or Equivalent
Accuracy Grade: JIS B 1514 Class 0

kgf=Nx0.101972

Part Number	Type	d	D	B	GD	GR (Slot Width)	C Chamfer	R (Corner R)	Basic Load Rating		Relative Dimensions		Weight (g) (Reference)
									Cr (Dynamic) N	Co (Static) N	Ds (min)	dh (max.)	
SZG	3	12	4	4	10	2	(0.25)	0.25	542	186	4.5	7.5	1.3
	3	14			12								1.8
	4	12			10								1.2
	4	14			12								1.8
	6	16			14								650

Part Number Example	Part Number	D
	SZV3	12
	SZU3	12